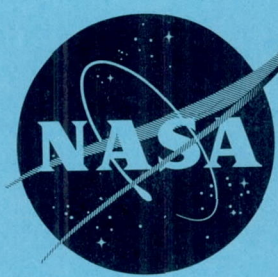


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# TECHNICAL MEMORANDUM

## X-275

PRESSURE DISTRIBUTION OF A 0.0667-SCALE MODEL OF THE  
X-15 AIRPLANE FOR AN ANGLE-OF-ATTACK RANGE OF  
0° TO 28° AT MACH NUMBERS OF  
2.30, 2.88, AND 4.65

By B. Leon Hodge and Paige B. Burbank

Langley Research Center  
Langley Field, Va.

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

TECHNICAL MEMORANDUM X-275

PRESSURE DISTRIBUTION OF A 0.0667-SCALE MODEL OF THE  
X-15 AIRPLANE FOR AN ANGLE-OF-ATTACK RANGE OF  
0° TO 28° AT MACH NUMBERS OF

2.30, 2.88, AND 4.65\*

By B. Leon Hodge and Paige B. Burbank

SUMMARY

The pressure distribution was determined on the complete X-15 airplane model (configuration 3) for angles of attack from 0° to 28° and angles of sideslip from 0° to 110° through a Mach number range of 2.30 to 4.65. Results obtained by theories for calculating pressures on isolated shapes, for example, shock-expansion theory, infinite-swept-cylinder theory, and Tsien's hypersonic similarity law are compared with the experimental pressure distribution on the wing, the cylindrical portion of the fuselage, and the fuselage nose, and a reasonable degree of agreement is obtained.

INTRODUCTION

The X-15 research airplane has been designed through efforts of the National Aeronautics and Space Administration, Air Force, and North American Aviation, Inc. This airplane is designed for exploratory flight studies of aerodynamic heating, stability, control, and physiological problems of hypersonic and space flight. The structural design of such a vehicle depends upon point loads and the magnitude of aerodynamic heating that will occur at the higher Mach numbers and large angles of attack. Theoretical prediction of pressure distributions has been limited to relatively simple shapes and isolated components. Prior to this investigation, free-flight and wind-tunnel tests have been similarly confined. The purpose of the present investigation is to obtain a detailed pressure distribution on a scale model of the complete

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X-15 configuration through a Mach number range of 2.30 to 4.65 and an angle-of-attack range of  $0^\circ$  to  $28^\circ$  at angles of sideslip of  $0^\circ$  to  $\pm 10^\circ$ . A comparison of these measured data with theoretical predictions of similar isolated shapes is included.

The results of a stability investigation of this X-15 configuration is presented in reference 1.

#### SYMBOLS

b	span, in.
c	chord, in.
C	position of orifice on canopy
$C_p$	pressure coefficient based on free-stream conditions, $\frac{p_l - p_\infty}{q_\infty}$
d	diameter, in.
$p_l$	local static pressure
$p_\infty$	free-stream static pressure
$p_t$	measured total pressure, lb/sq ft
$p_{t,\infty}$	tunnel stagnation pressure, lb/sq ft
L	position of orifice on lower surface of side fairing
l	overall length, 39.33 in.
M	Mach number
R	free-stream Reynolds number
s	height of boundary-layer survey-rake tube above fuselage surface, in.
U	position of orifice on upper surface of side fairing
x	longitudinal distance (defined in fig. 2), in.

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y	distance from fuselage center line, on wing and horizontal tail, in.
z	distance from fuselage reference plane, on vertical and ventral tails, in.
$\alpha$	nominal angle of attack relative to fuselage reference line, deg
$\beta$	angle of sideslip, deg
$\phi$	meridian angle (shown in fig. 2), deg
$\delta_v$	vertical and ventral fin deflections, deg
$\delta_s$	speed-brake deflections, deg

## Subscripts:

w	wing
v	vertical and ventral fins
h	horizontal tail
s	speed brakes

## DESCRIPTION OF MODEL

The 0.0667-scale model of the X-15 shown in figure 1 was instrumented with both thermocouples and pressure orifices to determine the heat transfer and pressure distribution of the complete configuration. The geometric characteristics of this X-15 configuration are presented in table I. The skin of the left side of the model, having a nominal thickness of 0.050-inch stainless steel, was instrumented with 256 thermocouples; the right side of the model contained 241 pressure orifices. Only the pressure distributions are presented herein.

Transition strips of No. 60 carborundum were used to develop turbulent boundary layers on all surfaces. In addition to the transition ring about the nose of the fuselage, two narrow bands of carborundum were also located along each side of the zero meridian line. The axial transition strips were approximately 5° wide ( $\phi = 5^\circ$  to  $10^\circ$ ) as shown in figure 1. Transition strips were located at approximately the 5-percent-chord station on the wings and tail surfaces.



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The location of the pressure orifices and the coordinate systems used to describe the location of each orifice are shown in figure 2. The fuselage cross sections illustrating the pressure-orifice location at six axial stations are shown in figure 3. Figure 4 shows the 0.0667-scale model installed in the high Mach number test section of the Langley Unitary Plan wind tunnel prior to the addition of the transition strips. The outboard sections of the vertical and ventral (lower vertical) fins could be deflected  $\pm 7.5^\circ$  as shown in figures 5 and 6. The speed brake could be deflected to  $35^\circ$  as shown in figure 7.

The local total-pressure distribution about the fuselage was determined at four axial stations by the rakes illustrated in figures 8 and 9. At  $x/l = 0.170$  the total pressure was determined by a single row of tubes located 0.15 inch from the model surface at nine points about the body. At  $x/l$  of 0.348, 0.752, and 0.910, multiple-tube rakes were located at each meridian angle surveyed. The tubes at each meridian angle were in a plane normal to the local model surface.

#### INSTRUMENTATION

The pressure orifices were connected to valves that sequentially sampled 48 pressures on a single electrical transducer. The transducer output was recorded on punch cards for machine calculation by means of a multichannel sequential analog to digital converter (ref. 2). The free-stream static pressure and the stagnation pressure were measured by precision mercury manometers with an accuracy of 0.5 pound per square foot. The accuracy of the system is then limited to the electrical transducer. The gage hysteresis of 1/2 percent of full-scale deflection results in the following maximum probable error:

M	R/ft	$\Delta C_p$
2.30	$\begin{cases} 2.7 \times 10^6 \\ 5.2 \end{cases}$	$\begin{matrix} \pm 0.0177 \\ \pm 0.0108 \end{matrix}$
2.88	5.2	$\pm 0.0104$
4.65	$\begin{cases} 2.7 \\ 5.2 \end{cases}$	$\begin{matrix} \pm 0.0332 \\ \pm 0.0174 \end{matrix}$

Schlieren photographs and shadow graphs were obtained throughout the Mach number and angle-of-attack range.

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## APPARATUS AND TEST CONDITIONS

This investigation was conducted in the high Mach number test section of the Langley Unitary Plan wind tunnel. This variable-pressure continuous-flow tunnel has an asymmetrical sliding block nozzle that permits a continuous variation of the test-section Mach number from 2.30 to 4.65. The maximum deviation in test section Mach number  $\Delta M$  varies with Mach number as follows:

M	$\Delta M$
2.30	$\pm 0.02$
2.88	$\pm 0.02$
4.65	$\pm 0.05$

The test conditions for which pressures were obtained are as follows:

M	R/ft	$\alpha$ , deg	$\beta$ , deg	$\delta_v$ , deg	$\delta_s$ , deg
2.30	$2.61 \times 10^6$	0 to 15	0, $\pm 5$ , $\pm 10$	0	35
	4.25	0 to 15	0, $\pm 5$ , $\pm 10$	0, $\pm 7.5$	0, 35
2.88	5.05	0 to 20	0, $\pm 10$	0, $\pm 7.5$	0, 35
4.65	2.75	0 to 28	0, $\pm 10$	0	35
	5.22	0 to 28	0, 10	0, $\pm 7.5$	0, 35

## DATA PRESENTATION

The effect of Reynolds number on the local pressures in the presence of an artificially tripped boundary layer is slight; therefore, the measured pressures and pressure coefficients are presented herein for only the highest Reynolds number at each Mach number.

The pressure coefficients are presented in tabular form for the various airplane components as indicated in the following list:

	Table
Pressure coefficients measured on the fuselage . . . . .	II
Pressure coefficients measured on the wing . . . . .	III
Pressure coefficients measured on the horizontal tail . . . . .	IV



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## Table

Pressure coefficients measured on the vertical tail . . . . .	V
Measured-impact-pressure distribution on fuselage . . . . .	VI

Plots of pressure distributions for the fuselage, wing, and tail surfaces have been made to indicate the effects of varying angle of attack, angle of sideslip, and vertical-tail deflection. These results are shown in figures 10 to 21. The following table is included to facilitate location of pertinent data:

## Figure

Effect of angle of attack on pressure distribution of fuselage; $\beta = 0^\circ$ ; $\delta_v = 0^\circ$ ; $\delta_s = 0^\circ$ . . . . .	10
Effect of angle of attack on pressure distribution of wing; $\beta = 0^\circ$ . . . . .	11
Effect of sideslip on pressure distribution of wing at maximum angles of attack . . . . .	12
Effect of angle of attack on pressure distribution of horizontal tail; $\beta = 0^\circ$ ; $\delta_v = 0^\circ$ ; $\delta_s = 0^\circ$ . . . . .	13
Effect of angle of sideslip on pressure distribution of horizontal tail; $\delta_v = 0^\circ$ ; $\delta_s = 0^\circ$ . . . . .	14
Effect of vertical-tail deflections on pressure distribution of horizontal tail; $\beta = 0^\circ$ . . . . .	15
Effect of angle of attack on pressure distribution of vertical tail; $\beta = 0^\circ$ ; $\delta_v = 0^\circ$ ; $\delta_s = 0^\circ$ . . . . .	16
Effect of angle of sideslip on pressure distribution of vertical tail with various vertical-tail deflections; $M = 2.30$ . . . . .	17
Effect of angle of sideslip on pressure distribution of vertical tail with various vertical-tail deflections; $M = 2.88$ . . . . .	18
Effect of angle of sideslip on pressure distribution of vertical tail with various vertical-tail deflections; $M = 4.65$ . . . . .	19
Effect of tail deflections on the pressure distribution of the vertical tail; $\beta = 0^\circ$ . . . . .	20
Effect of angle of attack on the measured impact pressure for various axial stations:	
$M = 2.88$ ( $x/l = 0.170, 0.348, 0.752, 0.910$ ) . . . . .	21(a)
$M = 4.65$ ( $x/l = 0.170, 0.348, 0.752, 0.910$ ) . . . . .	21(b)

Details of the flow field about the model throughout the range of test conditions are shown in the schlieren photographs of figure 22 and in the shadowgraphs of figure 23.

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## DISCUSSION OF RESULTS

The complex geometry of any complete aircraft configuration prevents the application of any single theory for the prediction of the overall flow field. However, several theories, for example, the wedge shock-expansion theory, infinite-swept-cylinder theory (ref. 3), and Tsien's hypersonic similarity law (refs. 4 and 5) developed for isolated configurations have been applied herein to portions of the complete X-15 configuration such as the wing, the cylindrical portion of the fuselage, and the fuselage nose.

The shock-expansion method for predicting local pressures on an isolated wing is compared with measured values for  $\alpha$  of  $0^\circ$  and  $10^\circ$  at  $M = 2.88$  and  $\alpha$  of  $0^\circ$  and  $15^\circ$  at  $M = 4.65$  in figure 24. The blunt leading edge was approximated by a  $6^\circ$  wedge that corresponds to the slope of the surface at the point of tangency of the cylindrical leading edge with the NACA 66-005 (modified) airfoil at  $x/c = 0.025$ . The wing was considered two dimensional with zero sweep. The stagnation pressure was modified by using the total-pressure ratio as determined from the measured shock angles of the fuselage nose and side fairing. From consideration of these approximations, the agreement of measured data with theoretical values is good.

Tsien's hypersonic similarity law, applicable to pointed-nose bodies of high fineness ratio at zero angle of attack, was used as outlined in reference 5 to predict the pressures on the circular arc portion of the nose. The good agreement at all three Mach numbers is illustrated in figure 25.

The pressures along the stagnation line of the cylindrical portion of the fuselage were computed for angles of attack at the three test Mach numbers by the theory for a swept circular cylinder of infinite length as outlined by reference 3. No attempt was made to predict the pressures circumferentially around the fuselage due to the complicated flow field induced by the various protuberances. The results are compared with measured data in figure 25 and again the agreement is very good.

## CONCLUSIONS

Pressure distributions were determined on a model of the complete X-15 airplane (configuration 3) for an angle-of-attack range of  $0^\circ$  to  $28^\circ$  and angles of sideslip of  $0^\circ$  to  $\pm 10^\circ$  through a Mach number range

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of 2.30 to 4.65. Results obtained by theories for calculating pressures on isolated shapes, that is, shock-expansion theory, infinite-swept-cylinder theory, and Tsien's hypersonic similarity law, were compared with the experimental pressure distributions on the wing, the cylindrical portion of the fuselage, and the fuselage nose, and a reasonable degree of agreement was obtained.

Langley Research Center,  
National Aeronautics and Space Administration,  
Langley Field, Va., January 11, 1960.

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TABLE I.- GEOMETRIC CHARACTERISTICS OF THE 0.0667-SCALE MODEL  
OF THE X-15 AIRPLANE (CONFIGURATION 3)

	Total (including fuselage)	Exposed (excluding fuselage)
<b>Wing:</b>		
Area, sq ft . . . . .	0.889	0.467
Span, in. . . . .	17.89	12.02
Aspect ratio . . . . .	2.50	2.15
Taper ratio . . . . .	0.20	0.27
Sweepback of quarter-chord line, deg . . . . .	25.64	
Dihedral, deg . . . . .	0	
Incidence, deg . . . . .	0	
Geometric twist, deg . . . . .	0	
<b>Airfoil section:</b>		
Root . . . . .	NACA 66-005 (modified)	
Tip . . . . .	NACA 66-005 (modified)	
Root chord, in. . . . .	11.93	8.80
Tip chord, in. . . . .	2.38	2.38
<b>Mean aerodynamic chord:</b>		
Length, in. . . . .	8.22	6.21
Distance from root chord, in. . . . .	3.48	2.43
<b>Fuselage:</b>		
Length, in. . . . .	39.33	
Width (including side fairing), in. . . . .	5.87	
Depth, in. . . . .	3.73	
Frontal area, sq in. . . . .	10.93	
Overall fineness ratio . . . . .	10.54	
Side area, sq in. . . . .	134.50	
Base area, sq in. . . . .	8.02	
Base-fairing area, sq in. . . . .	2.15	
<b>Horizontal tail:</b>		
Area (chord plane), sq ft . . . . .	0.513	0.225
Span (projected), in. . . . .	14.46	8.69
Aspect ratio . . . . .	3.04	2.41
Taper ratio . . . . .	0.21	0.30
<b>Mean aerodynamic chord:</b>		
Length, in. . . . .	5.65	3.95
Distance from root chord, in. . . . .	2.92	1.85
Sweepback of quarter-chord line, deg . . . . .	45.00	
Dihedral, deg . . . . .	-15.00	
Geometric twist, deg . . . . .	0	
Incidence, deg . . . . .	0	
<b>Airfoil section:</b>		
Root . . . . .	NACA 66-005 (modified)	
Tip . . . . .	NACA 66-005 (modified)	
Root chord, in. . . . .	8.18	5.53
Tip chord, in. . . . .	1.68	1.68
<b>Vertical tail:</b>		
Area, sq ft . . . . .	0.294	0.181
Span, in. . . . .	5.53	3.67
Aspect ratio . . . . .	0.72	0.52
Taper ratio . . . . .	0.66	0.74
<b>Airfoil section:</b>		
Root . . . . .	10° wedge	
Tip . . . . .	10° wedge	
Root chord, in. . . . .	9.25	8.17
Tip chord, in. . . . .	6.05	6.05
<b>Ventral fin:</b>		
Area, sq ft . . . . .	0.268	0.155
Span, in. . . . .	4.94	3.07
Aspect ratio . . . . .	0.63	0.42
Taper ratio . . . . .	0.69	0.78
<b>Airfoil section:</b>		
Root . . . . .	10° wedge	
Tip . . . . .	10° wedge	
Root chord, in. . . . .	9.25	8.17
Tip chord, in. . . . .	6.40	6.40
<b>Speed brakes:</b>		
Area, sq ft . . . . .		0.024



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE

(a)  $M = 2.30$ 

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
---------------	----------------------	-------	---------------	----------------------	-------	---------------	----------------------	-------	---------------	----------------------	-------

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.1115	.223	135	-.0849	.501	U	-.0327	.820	15	-.0931
.022	90	.0338	.223	C	-.1565	.501	135	-.0563	.820	38	-.0767
.022	180	.1176	.260	180	-.1596	.586	00	-.0880	.820	58	-.0696
.081	00	.0726	.280	00	-.0818	.586	180	-.0818	.820	68	-.0798
.081	45	.0061	.297	30	-.1095	.603	15	-.0655	.820	75	.0092
.081	90	.0174	.297	60	-.0460	.603	30	-.0624	.820	81	.0511
.081	135	.0061	.297	L	-.0297	.603	50	-.0757	.820	88	.0256
.081	180	.0788	.297	90	-.0235	.603	L	-.0010	.820	93	.0051
.131	180	.0338	.297	U	-.0624	.603	U	-.0072	.820	103	-.0471
.153	170	-.0072	.297	135	-.0593	.603	135	-.0563	.820	117	-.0604
.170	00	.0010	.316	180	-.1718	.688	00	-.0706	.820	142	-.0767
.170	30	-.0430	.348	20	-.0982	.688	180	-.0716	.820	165	-.1156
.170	60	-.0378	.348	40	-.0655	.705	15	-.0491	.896	30	-.0829
.170	90	-.0266	.348	60	-.0593	.705	30	-.0491	.896	50	-.0992
.170	135	-.0399	.348	L	-.0593	.705	50	-.0788	.896	L	-.1289
.170	166	-.0205	.348	90	-.0563	.705	L	-.0297	.896	U	-.0900
.170	C	.0389	.348	U	-.0491	.705	U	.0020	.896	130	-.0962
.187	150	-.0358	.348	135	-.0399	.705	135	-.0368	.896	150	-.0992
.187	C	.0061	.365	00	-.1095	.752	00	-.0706	.984	00	-.1749
.194	180	-.1463	.365	180	-.0818	.752	180	-.0563	.984	30	-.1524
.204	C	-.0041	.484	00	-.0982	.769	15	-.0491	.984	60	-.1555
.214	00	-.0317	.484	180	-.0910	.769	30	-.0491	.984	90	-.1688
.214	180	-.1729	.501	15	-.0706	.769	50	-.0532	.984	135	-.1350
.223	22	-.0706	.501	30	-.0706	.769	L	-.0235	.984	180	-.1718
.223	45	-.0685	.501	50	-.0818	.769	90	.0020			
.223	67	-.0542	.501	L	-.0266	.769	U	-.0471			
.223	90	-.0430	.501	90	-.0235	.769	135	-.0471			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.3437	.223	135	-.0532	.501	U	-.1504	.820	15	-.0522
.022	90	-.0133	.223	C	-.1698	.501	135	-.0757	.820	38	-.0194
.022	180	-.0133	.260	180	-.1862	.586	00	-.0133	.820	58	-.0051
.081	00	.2874	.280	00	-.0593	.586	180	-.0559	.820	68	.0348
.081	45	-.0532	.297	30	-.0747	.603	15	-.0747	.820	75	.0931
.081	90	-.0419	.297	60	-.1340	.603	30	-.0757	.820	81	.1882
.081	135	-.0010	.297	L	-.0338	.603	50	-.0307	.820	88	-.0471
.081	180	-.0471	.297	90	-.0859	.603	L	.0338	.820	93	-.0113
.131	180	-.0583	.297	U	-.1115	.603	U	-.1176	.820	103	-.0501
.153	170	-.0593	.297	135	-.1054	.603	135	-.0788	.820	117	-.1156
.170	00	.1872	.316	180	-.1586	.688	00	-.0020	.820	142	-.1064
.170	30	.0368	.348	20	-.0634	.688	180	-.0818	.820	165	-.1095
.170	60	-.0747	.348	40	-.1248	.705	15	-.0747	.896	30	-.0215
.170	90	-.0859	.348	60	-.0624	.705	30	.0143	.896	50	-.0378
.170	135	-.0368	.348	L	-.0051	.705	50	.0020	.896	L	-.0143
.170	166	-.0368	.348	90	-.1371	.705	L	.0409	.896	U	-.0706
.170	C	-.0276	.348	U	-.1565	.705	U	.0604	.896	130	-.0829
.187	150	-.0235	.348	135	-.0890	.705	135	-.0962	.896	150	-.1156
.187	C	-.0307	.365	00	.0194	.752	00	-.0194	.984	00	-.1453
.194	180	-.2087	.365	180	-.0951	.752	180	-.0962	.984	30	-.1227
.204	C	-.0143	.484	00	.0031	.769	15	.0194	.984	60	-.0440
.214	00	.1258	.484	180	-.0921	.769	30	.0481	.984	90	-.1718
.214	180	-.2087	.501	15	-.0583	.769	50	.0276	.984	135	-.1657
.223	22	.0194	.501	30	-.1084	.769	L	.0706	.984	180	-.1882
.223	45	-.0726	.501	50	-.0399	.769	90	-.0082			
.223	67	-.1309	.501	L	-.0205	.769	U	-.1033			
.223	90	-.1013	.501	90	-.1504	.769	135	-.1064			

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.4767	.223	135	-.0726	.501	U	-.2087	.820	15	-.0133
.022	90	-.0583	.223	C	-.1862	.501	135	-.1534	.820	38	.0307
.022	180	-.0471	.260	180	-.1729	.586	00	-.0757	.820	58	.0604
.081	00	.4153	.280	00	.1596	.586	180	-.0757	.820	68	.1626
.081	45	.1033	.297	30	-.0194	.603	15	-.0020	.820	75	.1596
.081	90	-.1197	.297	60	-.1401	.603	30	-.0818	.820	81	.2342
.081	135	-.0338	.297	L	-.0368	.603	50	.0184	.820	88	-.1453
.081	180	-.0583	.297	90	-.1667	.603	L	.0869	.820	93	-.0573
.131	180	-.0747	.297	U	-.1473	.603	U	-.1923	.820	103	-.0542
.153	170	-.0563	.297	135	-.1565	.603	135	-.1309	.820	117	-.1391
.170	00	.3038	.316	180	-.1320	.688	00	.0921	.820	142	-.1360
.170	30	.1033	.348	20	.0031	.688	180	-.1013	.820	165	-.1391
.170	60	-.0634	.348	40	-.0859	.705	15	.0031	.896	30	.0409
.170	90	-.1698	.348	60	-.0297	.705	30	.0368	.896	50	.0113
.170	135	-.0788	.348	L	.0184	.705	50	.0736	.896	L	.1033
.170	166	-.0368	.348	90	-.0818	.705	L	.1320	.896	U	-.0706
.170	C	-.0624	.348	U	-.2087	.705	U	.0409	.896	130	-.1125
.187	150	-.0072	.348	135	-.1626	.705	135	-.1227	.896	150	-.1320
.187	C	-.0399	.365	00	.1095	.752	00	.0757	.984	00	-.1095
.194	180	-.2117	.365	180	-.0788	.752	180	-.1156	.984	30	-.0736
.204	C	-.0266	.484	00	.0921	.769	15	.0143	.984	60	-.0378
.214	00	.2322	.484	180	-.1115	.769	30	.1258	.984	90	-.1616
.214	180	-.2117	.501	15	.0143	.769	50	.1105	.984	135	-.1524
.223	22	.0982	.501	30	-.0583	.769	L	.1954	.984	180	-.1984
.223	45	-.0338	.501	50	.0051	.769	90	-.0767			
.223	67	-.1309	.501	L	.0245	.769	U	-.1453			
.223	90	-.1596	.501	90	-.1892	.769	135	-.1391			

In  $\beta$  column the following notation is used: C for canopy; L for lower fairing; U for upper fairing.

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a)  $M = 2.30$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$											
.022	00	.1467	.223	135	.0275	.501	U	-.0275	.820	15	.0469
.022	90	.1406	.223	C	-.1478	.501	135	-.0245	.820	38	.0357
.022	180	.1406	.260	180	-.0825	.586	00	-.0255	.820	58	.0010
.081	00	.1131	.280	00	-.0316	.586	180	-.0214	.820	68	-.0214
.081	45	.1131	.297	30	-.0428	.603	15	-.0255	.820	75	.0112
.081	90	.1080	.297	60	-.0082	.603	30	-.0214	.820	81	.0499
.081	135	.1019	.297	L	.0010	.603	50	-.0112	.820	88	.0245
.081	180	.1080	.297	90	.0367	.603	L	.0041	.820	93	.0112
.131	180	.0795	.297	U	-.0051	.603	U	.0010	.820	103	-.0245
.153	170	.1498	.297	135	-.0825	.603	135	-.0082	.820	117	-.0285
.170	00	.0408	.316	180	-.0907	.688	00	-.0143	.820	142	.0010
.170	30	.0357	.348	20	-.0204	.688	180	-.0082	.820	165	.0306
.170	60	.0357	.348	40	-.0204	.705	15	-.0092	.896	30	.0336
.170	90	.0367	.348	60	-.0306	.705	30	-.0092	.896	50	.0408
.170	135	.0469	.348	L	-.0346	.705	50	-.0183	.896	L	.0245
.170	166	.1467	.348	90	-.0183	.705	L	-.0275	.896	U	.0214
.170	C	.2303	.348	U	-.0856	.705	U	-.0214	.896	130	.0306
.187	150	.1243	.348	135	-.0469	.705	135	-.0122	.896	150	.0082
.187	C	.1824	.365	00	-.0255	.752	00	-.0031	.984	00	-.1529
.194	180	.0112	.365	180	.0275	.752	180	.0010	.984	30	-.1264
.204	C	.1661	.484	00	-.0143	.769	15	.0020	.984	60	-.0805
.214	00	.0020	.484	180	-.0153	.769	30	-.0031	.984	90	-.0805
.214	180	-.0469	.501	15	-.0204	.769	50	-.0020	.984	135	-.0673
.223	22	.0020	.501	30	-.0204	.769	L	.0010	.984	180	-.1620
.223	45	-.0020	.501	50	-.0275	.769	90	-.0082			
.223	67	.0020	.501	L	-.0408	.769	U	-.0316			
.223	90	.0010	.501	90	-.0438	.769	135	-.0245			
$\alpha = 5^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$											
.022	00	.2466	.223	135	.0204	.501	U	-.0601	.820	15	.1355
.022	90	.1406	.223	C	-.1641	.501	135	-.0346	.820	38	.1080
.022	180	.0795	.260	180	-.0958	.586	00	.0132	.820	58	.0703
.081	00	.2018	.280	00	.0132	.586	180	-.0245	.820	68	.0408
.081	45	.1743	.297	30	-.0143	.603	15	.0132	.820	75	.0173
.081	90	.1080	.297	60	.0234	.603	30	.0071	.820	81	.1192
.081	135	.0591	.297	L	.0560	.603	50	.0071	.820	88	-.0285
.081	180	.0581	.297	90	.0428	.603	L	.0683	.820	93	-.0020
.131	180	.0296	.297	U	-.0377	.603	U	-.0601	.820	103	-.0245
.153	170	.1009	.297	135	-.0958	.603	135	-.0214	.820	117	-.0673
.170	00	.1192	.316	180	-.0866	.688	00	.0132	.820	142	-.0571
.170	30	.0968	.348	20	-.0092	.688	180	-.0214	.820	165	-.0214
.170	60	.0632	.348	40	.0132	.705	15	.0357	.896	30	.0988
.170	90	.0296	.348	60	.0204	.705	30	.0469	.896	50	.1090
.170	135	.0071	.348	L	.0234	.705	50	.0489	.896	L	.1029
.170	166	.1070	.348	90	-.0122	.705	L	.0428	.896	U	-.0122
.170	C	.1753	.348	U	-.1121	.705	U	-.0744	.896	130	.0041
.187	150	.0978	.348	135	-.0988	.705	135	-.0611	.896	150	-.0377
.187	C	.1427	.365	00	-.0031	.752	00	.0520	.984	00	-.1294
.194	180	-.0285	.365	180	.0071	.752	180	-.0448	.984	30	-.0968
.204	C	.1427	.484	00	.0357	.769	15	.0632	.984	60	-.0836
.214	00	.0632	.484	180	-.0245	.769	30	.0632	.984	90	-.0836
.214	180	-.0734	.501	15	.0245	.769	50	.0601	.984	135	-.0907
.223	22	.0520	.501	30	.0132	.769	L	.0703	.984	180	-.1753
.223	45	.0326	.501	50	.0041	.769	90	-.0408			
.223	67	.0082	.501	L	-.0092	.769	U	-.0774			
.223	90	-.0122	.501	90	-.1090	.769	135	-.0673			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$											
.022	00	.3604	.223	135	-.0061	.501	U	-.2183	.820	15	.2223
.022	90	.1178	.223	C	-.1706	.501	135	-.0579	.820	38	.1888
.022	180	.0396	.260	180	-.1127	.586	00	.0680	.820	58	.1503
.081	00	.3218	.280	00	.0782	.586	180	.0623	.820	68	.1147
.081	45	.2335	.297	30	.0345	.603	15	.0619	.820	75	.0650
.081	90	.0731	.297	60	.0386	.603	30	.0518	.820	81	.1929
.081	135	.0071	.297	L	.0904	.603	50	.0518	.820	88	-.1107
.081	180	.0234	.297	90	-.0091	.603	L	.1391	.820	93	-.0487
.131	180	.0010	.297	U	-.1056	.603	U	-.2061	.820	103	-.0711
.153	170	.0609	.297	135	-.1096	.603	135	-.0670	.820	117	-.1239
.170	00	.2112	.316	180	-.0975	.688	00	.0619	.820	142	-.1198
.170	30	.1675	.348	20	.0284	.688	180	-.0355	.820	165	-.0619
.170	60	.0843	.348	40	.0284	.705	15	.0893	.896	30	.1858
.170	90	-.0600	.348	60	.0680	.705	30	.1117	.896	50	.1959
.170	135	-.0386	.348	L	.0711	.705	50	.1198	.896	L	.1888
.170	166	.0741	.348	90	-.0609	.705	L	.1198	.896	U	-.0548
.170	C	.1289	.348	U	-.1766	.705	U	-.1533	.896	130	.0071
.187	150	.0711	.348	135	-.1482	.705	135	-.1168	.896	150	-.0914
.187	C	.1127	.365	00	.0396	.752	00	.1178	.984	00	-.0873
.194	180	-.0508	.365	180	-.0223	.752	180	-.0751	.984	30	-.0548
.204	C	.1259	.484	00	.0782	.769	15	.1391	.984	60	-.0914
.214	00	.1503	.484	180	-.0315	.769	30	.1340	.984	90	-.1036
.214	180	-.0863	.501	15	.0731	.769	50	.1401	.984	135	-.1076
.223	22	.1228	.501	30	.0619	.769	L	.1431	.984	180	-.1726
.223	45	.0640	.501	50	.0416	.769	90	-.0782			
.223	67	.0071	.501	L	.0294	.769	U	-.1360			
.223	90	-.0416	.501	90	-.1706	.769	135	-.1401			



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a)  $M = 2.30$  - Continued

$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$
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 $\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.4966	.223	135	-.0718	.501	U	-.2286	.820	15	.3368
.022	90	.0829	.223	C	-.1740	.501	135	-.1578	.820	38	.2974
.022	180	-.0051	.260	180	-.1264	.586	00	.1456	.820	58	.2518
.081	00	.4359	.280	00	.1659	.586	180	-.0496	.820	68	.2073
.081	45	.2923	.297	30	.0941	.603	15	.1376	.820	75	.1517
.081	90	.0384	.297	60	.0303	.603	30	.1143	.820	81	.2974
.081	135	-.0587	.297	L	.1204	.603	50	.1143	.820	88	-.1821
.081	180	-.0111	.297	90	-.0455	.603	L	.2134	.820	93	-.1790
.131	180	-.0223	.297	U	-.1962	.603	U	-.2033	.820	103	-.1335
.153	170	.0152	.297	135	-.1578	.603	135	-.2033	.820	117	-.1365
.170	00	.3196	.316	180	-.1173	.688	00	.1325	.820	142	-.1699
.170	30	.2427	.348	20	.0941	.688	180	-.0455	.820	165	-.1011
.170	60	.1052	.348	40	.0445	.705	15	.1598	.896	30	.2812
.170	90	-.0455	.348	60	.1264	.705	30	.1982	.896	50	.3014
.170	135	-.0718	.348	L	.1305	.705	50	.2104	.896	L	.2943
.170	166	.0243	.348	90	-.0880	.705	L	.2164	.896	U	-.0920
.170	C	.1042	.348	U	-.2225	.705	U	-.1952	.896	130	-.0981
.187	150	.0182	.348	135	-.1578	.705	135	-.2215	.896	150	-.1467
.187	C	.1011	.365	00	.1214	.752	00	.2043	.984	00	-.0303
.194	180	-.0688	.365	180	-.0111	.752	180	-.0819	.984	30	-.0010
.204	C	.1072	.484	00	.1598	.769	15	.2316	.984	60	-.0819
.214	00	.2427	.484	180	-.0688	.769	30	.2316	.984	90	-.1305
.214	180	-.1001	.501	15	.1436	.769	50	.2326	.984	135	-.1598
.223	22	.2043	.501	30	.1325	.769	L	.2458	.984	180	-.1790
.223	45	.1113	.501	50	.1072	.769	90	-.1011			
.223	67	.0111	.501	L	.0850	.769	U	-.1568			
.223	90	-.0809	.501	90	-.1871	.769	135	-.2144			

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.1243	.223	135	.1722	.501	U	-.0306	.820	15	.1131
.022	90	.3465	.223	C	-.1121	.501	135	-.0540	.820	38	.0744
.022	180	.1131	.260	180	-.1569	.586	00	-.0927	.820	58	-.0316
.081	00	.0907	.280	00	-.0754	.586	180	-.0764	.820	68	-.0245
.081	45	.2242	.297	30	-.0316	.603	15	-.1029	.820	75	.0377
.081	90	.3078	.297	60	.0428	.603	30	-.0601	.820	81	.0866
.081	135	.2109	.297	L	.0785	.603	50	.0010	.820	88	.0662
.081	180	.0693	.297	90	.1753	.603	L	.0082	.820	93	.0469
.131	180	.0357	.297	U	.1243	.603	U	-.0020	.820	103	.0041
.153	170	.2466	.297	135	.0041	.603	135	-.0183	.820	117	-.0183
.170	00	.0082	.316	180	-.1783	.688	00	-.0703	.820	142	.0988
.170	30	.0795	.348	20	-.0530	.688	180	-.0662	.820	165	.1743
.170	60	.1580	.348	40	-.0255	.705	15	-.0927	.896	30	.2466
.170	90	.1824	.348	60	.0112	.705	30	-.0754	.896	50	.1488
.170	135	.1080	.348	L	.0082	.705	50	-.0245	.896	L	.1060
.170	166	.2660	.348	90	.0978	.705	L	-.0245	.896	U	.1325
.170	C	.4667	.348	U	.0082	.705	U	.0041	.896	130	.1580
.187	150	.2568	.348	135	-.0499	.705	135	-.0285	.896	150	.2436
.187	C	.4209	.365	00	-.0978	.752	00	-.0642	.984	00	-.1651
.194	180	-.1539	.365	180	-.0764	.752	180	-.0571	.984	30	-.0805
.204	C	.4178	.484	00	-.1141	.769	15	-.0815	.984	60	-.0479
.214	00	-.0255	.484	180	-.0825	.769	30	-.0754	.984	90	-.0122
.214	180	-.1763	.501	15	-.0978	.769	50	-.0183	.984	135	.0927
.223	22	.0132	.501	30	-.0642	.769	L	-.0020	.984	180	-.1722
.223	45	.0622	.501	50	.0214	.769	90	.0377			
.223	67	.0968	.501	L	-.0082	.769	U	-.0082			
.223	90	.1172	.501	90	.0173	.769	135	-.0285			

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.3553	.223	135	.0701	.501	U	-.1675	.820	15	.4548
.022	90	.3218	.223	C	-.1289	.501	135	-.1066	.820	38	.3279
.022	180	-.0102	.260	180	-.1766	.586	00	-.0102	.820	58	.1299
.081	00	.3107	.280	00	.0508	.586	180	-.0873	.820	68	.1076
.081	45	.4162	.297	30	.1117	.603	15	.0345	.820	75	.0751
.081	90	.2782	.297	60	.1766	.603	30	.0701	.820	81	.2406
.081	135	.0355	.297	L	.2183	.603	50	.1350	.820	88	-.0914
.081	180	-.0376	.297	90	.1442	.603	L	.2152	.820	93	-.1168
.131	180	-.0599	.297	U	-.0579	.603	U	-.1868	.820	103	-.0558
.153	170	.0640	.297	135	-.0680	.603	135	-.0772	.820	117	-.0558
.170	00	.1838	.316	180	-.1462	.688	00	-.0041	.820	142	-.0680
.170	30	.2721	.348	20	.0954	.688	180	-.0832	.820	165	-.0234
.170	60	.2670	.348	40	.1340	.705	15	.0508	.896	30	.2466
.170	90	.1604	.348	60	.1472	.705	30	.1066	.896	50	.3706
.170	135	-.0386	.348	L	.1635	.705	50	.1543	.896	L	.3188
.170	166	.0802	.348	90	.0832	.705	L	.1604	.896	U	-.0457
.170	C	.3503	.348	U	-.1411	.705	U	-.1046	.896	130	.0386
.187	150	.0832	.348	135	-.0995	.705	135	-.1046	.896	150	.0650
.187	C	.3472	.365	00	.0234	.752	00	-.0152	.984	00	-.1330
.194	180	-.2030	.365	180	-.1025	.752	180	-.0975	.984	30	-.0294
.204	C	.3817	.484	00	.0122	.769	15	.0396	.984	60	-.0812
.214	00	.1391	.484	180	-.0934	.769	30	.0893	.984	90	-.0396
.214	180	-.2091	.501	15	.0569	.769	50	.1563	.984	135	-.0721
.223	22	.1838	.501	30	.0893	.769	L	.1817	.984	180	-.1858
.223	45	.2051	.501	50	.0995	.769	90	-.0030			
.223	67	.1777	.501	L	.1056	.769	U	-.1208			
.223	90	.1025	.501	90	-.0223	.769	135	-.1046			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a) M = 2.30 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.4883	.223	135	.0030	.501	U	-.2183	.820	15	.6650
.022	90	.2995	.223	C	-.1188	.501	135	-.1543	.820	38	.4822
.022	180	-.0487	.260	180	-.1675	.586	00	.0782	.820	58	.2670
.081	00	.4213	.280	00	.1452	.586	180	-.0772	.820	68	.2051
.081	45	.4934	.297	30	.1949	.603	15	.1279	.820	75	.1533
.081	90	.2497	.297	60	.2508	.603	30	-.1543	.820	81	.3614
.081	135	-.0416	.297	L	.2893	.603	50	.2152	.820	88	-.1462
.081	180	-.0538	.297	90	.1320	.603	L	.3401	.820	93	-.1787
.131	180	-.0650	.297	U	-.1188	.603	U	-.2122	.820	103	-.1107
.153	170	-.0325	.297	135	-.1350	.603	135	-.2152	.820	117	-.1168
.170	00	.2944	.316	180	-.1360	.688	00	.0954	.820	142	-.1107
.170	30	.3716	.348	20	.1777	.688	180	-.0995	.820	165	-.1076
.170	60	.3107	.348	40	.2223	.705	15	.1675	.896	30	.5310
.170	90	.1381	.348	60	.2437	.705	30	.2284	.896	50	.4954
.170	135	-.1066	.348	L	.2508	.705	50	.2731	.896	L	.4599
.170	166	-.0223	.348	90	.0670	.705	L	.2924	.896	U	-.1492
.170	C	.3178	.348	U	-.1868	.705	U	-.1239	.896	130	-.0518
.187	150	-.0071	.348	135	-.1543	.705	135	-.2051	.896	150	.0264
.187	C	.3279	.365	00	.1066	.752	00	.0782	.984	00	-.0944
.194	180	-.2030	.365	180	-.0741	.752	180	-.1269	.984	30	.0102
.204	C	.1797	.484	00	.1005	.769	15	.1452	.984	60	-.0711
.214	00	.2447	.484	180	-.1096	.769	30	.2061	.984	90	-.0782
.214	180	-.2091	.501	15	.1452	.769	50	.2538	.984	135	-.0944
.223	22	.2944	.501	30	.1777	.769	L	.2995	.984	180	-.1980
.223	45	.2853	.501	50	.1858	.769	90	-.0518			
.223	67	.2000	.501	L	.1827	.769	U	-.1462			
.223	90	.0863	.501	90	-.0579	.769	135	-.1980			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0633	.820	15	-.1082	.820	117	-.0633	.984	00	-.1358
.752	180	-.0531	.820	38	-.0745	.820	142	-.0796	.984	30	-.1685
.769	15	-.0470	.820	58	-.0664	.820	165	-.1154	.984	60	-.1583
.769	30	-.0470	.820	68	-.0827	.896	30	.0184	.984	90	-.1450
.769	50	-.0368	.820	75	.0184	.896	50	-.0796	.984	135	-.1879
.769	L	-.0143	.820	81	.0511	.896	L	-.1256	.984	180	-.1419
.769	90	.0020	.820	88	.0214	.896	U	-.0899			
.769	U	-.0470	.820	93	.0051	.896	130	-.0766			
.769	135	-.0470	.820	103	-.0470	.896	150	.0020			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0082	.820	15	-.0582	.820	117	-.1184	.984	00	-.0796
.752	180	-.0990	.820	38	-.0245	.820	142	-.1092	.984	30	-.1388
.769	15	.0143	.820	58	-.0204	.820	165	-.1123	.984	60	-.1051
.769	30	.0418	.820	68	.0255	.896	30	.1102	.984	90	-.1225
.769	50	.0153	.820	75	.0939	.896	50	.0286	.984	135	-.2041
.769	L	.0643	.820	81	.1960	.896	L	-.0041	.984	180	-.1806
.769	90	-.0041	.820	88	-.0469	.896	U	-.0725			
.769	U	-.1021	.820	93	-.0174	.896	130	-.0857			
.769	135	-.1092	.820	103	-.0531	.896	150	-.0235			
$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.0868	.820	15	-.0071	.820	117	-.1388	.984	00	-.0500
.752	180	-.1123	.820	38	.0367	.820	142	-.1357	.984	30	-.1153
.769	15	.0204	.820	58	.0378	.820	165	-.1388	.984	60	-.1194
.769	30	.1204	.820	68	.1398	.896	30	.2215	.984	90	-.1317
.769	50	.1755	.820	75	.1531	.896	50	.2378	.984	135	-.2072
.769	L	.1888	.820	81	.2409	.896	L	.1133	.984	180	-.1715
.769	90	-.0572	.820	88	-.1449	.896	U	-.0694			
.769	U	-.1388	.820	93	-.0602	.896	130	-.1092			
.769	135	-.1357	.820	103	-.0633	.896	150	-.0663			



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a)  $M = 2.30$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.022	00	.1307	.223	135	-.0276	.501	U	-.0276	.820	15	-.0357
.022	90	.0756	.223	C	-.1440	.501	135	-.0245	.820	38	-.0194
.022	180	.1358	.260	180	-.0858	.586	00	-.0419	.820	58	-.0143
.081	00	.0970	.280	00	-.0470	.586	180	-.0337	.820	68	-.0112
.081	45	.0643	.297	30	-.0643	.603	15	-.0357	.820	75	.0214
.081	90	.0582	.297	60	-.0184	.603	30	-.0276	.820	81	.0449
.081	135	.0623	.297	L	-.0112	.603	50	-.0153	.820	88	.0123
.081	180	.0970	.297	90	-.0020	.603	L	.0010	.820	93	.0123
.131	180	.0643	.297	U	-.0337	.603	U	.0041	.820	103	-.0204
.153	170	.0756	.297	135	-.0531	.603	135	-.0153	.820	117	-.0306
.170	00	.0306	.316	180	-.1256	.688	00	-.0306	.820	142	-.0306
.170	30	.0082	.348	20	-.0531	.688	180	-.0276	.820	165	-.0470
.170	60	-.0031	.348	40	-.0306	.705	15	-.0245	.896	30	.0970
.170	90	-.0020	.348	60	-.0306	.705	30	-.0194	.896	50	.1001
.170	135	.0112	.348	L	-.0378	.705	50	-.0245	.896	L	.0378
.170	166	.0653	.348	90	-.0500	.705	L	-.0245	.896	U	-.0204
.170	C	.1338	.348	U	-.0602	.705	U	.1460	.896	130	.0123
.187	150	.0500	.348	135	-.0337	.705	135	-.0010	.896	150	.0745
.187	C	.0919	.365	00	-.0470	.752	00	-.0306	.984	00	-.1256
.194	180	.0010	.365	180	-.0153	.752	180	-.0204	.984	30	-.1552
.204	C	.0786	.484	00	-.0306	.769	15	-.0194	.984	60	-.1450
.214	00	-.0031	.484	180	-.0337	.769	30	-.0082	.984	90	-.1195
.214	180	-.0531	.501	15	-.0306	.769	50	-.0112	.984	135	-.1971
.223	22	-.0592	.501	30	-.0306	.769	L	.0020	.984	180	-.1358
.223	45	-.0276	.501	50	-.0306	.769	90	-.0082			
.223	67	-.0245	.501	L	-.0306	.769	U	-.0245			
.223	90	-.0184	.501	90	-.0306	.769	135	-.0204			

 $\alpha = 10^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$ 

.022	00	.3574	.223	135	-.0306	.501	U	-.1981	.820	15	.0745
.022	90	.0408	.223	C	-.1726	.501	135	-.0786	.820	38	.0960
.022	180	.0184	.260	180	-.1787	.586	00	.0408	.820	58	.0970
.081	00	.3073	.280	00	.0745	.586	180	-.0919	.820	68	.1133
.081	45	.1409	.297	30	-.0204	.603	15	.0245	.820	75	.0939
.081	90	.0020	.297	60	-.0531	.603	30	-.0265	.820	81	.1817
.081	135	.0082	.297	L	.0276	.603	50	.0184	.820	88	-.0633
.081	180	.0184	.297	90	-.0592	.603	L	.0929	.820	93	-.0204
.131	180	-.0143	.297	U	-.1235	.603	U	-.1532	.820	103	-.0439
.153	170	.0082	.297	135	-.1205	.603	135	-.0725	.820	117	-.1195
.170	00	.1909	.316	180	-.1123	.688	00	.0521	.820	142	-.0796
.170	30	.1072	.348	20	-.0143	.688	180	-.0786	.820	165	-.0143
.170	60	.0020	.348	40	-.0643	.705	15	.0296	.896	30	.2675
.170	90	-.0592	.348	60	-.0153	.705	30	.0572	.896	50	.2542
.170	135	-.0235	.348	L	.0317	.705	50	.0766	.896	L	.0970
.170	166	.0214	.348	90	-.1041	.705	L	.0960	.896	U	-.0306
.170	C	.0439	.348	U	-.1858	.705	U	.0970	.896	130	-.0470
.187	150	.0276	.348	135	-.0980	.705	135	-.0694	.896	150	-.1195
.187	C	.0347	.365	00	.0357	.752	00	.0745	.984	00	-.0858
.194	180	-.0980	.365	180	-.0725	.752	180	-.0960	.984	30	-.1225
.204	C	.0408	.484	00	.0470	.769	15	.0909	.984	60	-.1154
.214	00	.1460	.484	180	-.1174	.769	30	.1184	.984	90	-.1154
.214	180	-.1593	.501	15	.0296	.769	50	.1297	.984	135	-.2144
.223	22	-.0745	.501	30	-.0184	.769	L	.1368	.984	180	-.1685
.223	45	-.0041	.501	50	.0184	.769	90	-.0245			
.223	67	-.0643	.501	L	.0123	.769	U	-.1062			
.223	90	-.0919	.501	90	-.1695	.769	135	-.1062			

 $\alpha = 15^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$ 

.022	00	.4840	.223	135	-.0633	.501	U	-.2083	.820	15	.1460
.022	90	.0071	.223	C	-.1695	.501	135	-.1858	.820	38	.1848
.022	180	-.0204	.260	180	-.1889	.586	00	.1246	.820	58	.1858
.081	00	.4176	.280	00	.1572	.586	180	-.0919	.820	68	.2144
.081	45	.1960	.297	30	.0357	.603	15	.0847	.820	75	.1623
.081	90	-.0419	.297	60	-.0725	.603	30	.0633	.820	81	.2675
.081	135	-.0306	.297	L	.0408	.603	50	.0827	.820	88	-.1685
.081	180	-.0255	.297	90	-.1215	.603	L	.1470	.820	93	-.1225
.131	180	-.0368	.297	U	-.1787	.603	U	-.1981	.820	103	-.0766
.153	170	.0082	.297	135	-.1562	.603	135	-.1562	.820	117	-.1521
.170	00	.2961	.316	180	-.0990	.688	00	.1297	.820	142	-.1225
.170	30	.1685	.348	20	.0521	.688	180	-.1276	.820	165	-.0408
.170	60	.0071	.348	40	-.0255	.705	15	.0909	.896	30	.3911
.170	90	-.1113	.348	60	.0531	.705	30	.1021	.896	50	.3655
.170	135	-.0562	.348	L	.0756	.705	50	.1603	.896	L	.1950
.170	166	.0276	.348	90	-.1501	.705	L	.1858	.896	U	-.0204
.170	C	.0245	.348	U	-.2175	.705	U	.1266	.896	130	-.0929
.187	150	.0174	.348	135	-.1756	.705	135	-.1195	.896	150	-.1317
.187	C	.0214	.365	00	.1184	.752	00	.1572	.984	00	-.0470
.194	180	-.1664	.365	180	-.0694	.752	180	-.1552	.984	30	-.1093
.204	C	.0306	.484	00	.1184	.769	15	.1685	.984	60	-.1225
.214	00	.2461	.484	180	-.0980	.769	30	.2073	.984	90	-.2175
.214	180	-.1950	.501	15	.0847	.769	50	.1889	.984	135	-.1879
.223	22	.1634	.501	30	.0684	.769	L	.2277			
.223	45	.0337	.501	50	.0827	.769	90	-.0766			
.223	67	-.0643	.501	L	.0602	.769	U	-.1644			
.223	90	-.1440				.769	135	-.1480			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a) M = 2.30 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0041	.820	15	.0458	.820	117	-.0214	.984	00	-.1395
.752	180	.0010	.820	38	.0346	.820	142	.0112	.984	30	-.1588
.769	15	.0020	.820	58	.0071	.820	165	.0407	.984	60	-.0702
.769	30	-.0041	.820	68	-.0153	.896	30	.2036	.984	90	-.0835
.769	50	.0010	.820	75	.0244	.896	50	.1934	.984	135	-.1914
.769	L	.0041	.820	81	.0570	.896	L	.0926	.984	180	-.1486
.769	90	-.0020	.820	88	.0275	.896	U	.0305			
.769	U	-.0153	.820	93	.0204	.896	130	.0468			
.769	135	-.0183	.820	103	-.0183	.896	150	.1354			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.1204	.820	15	.2205	.820	117	-.1194	.984	00	-.1000
.752	180	-.0735	.820	38	.1929	.820	142	-.1194	.984	30	-.1255
.769	15	.1429	.820	58	.1327	.820	165	-.0602	.984	60	-.0898
.769	30	.1317	.820	68	.1164	.896	30	.3123	.984	90	-.0572
.769	50	.1225	.820	75	.0735	.896	50	.3348	.984	135	-.1817
.769	L	.1459	.820	81	.2072	.896	L	.2337	.984	180	-.1521
.769	90	-.0572	.820	88	-.1092	.896	U	-.0510			
.769	U	-.1225	.820	93	-.0276	.896	130	.0082			
.769	135	-.1357	.820	103	-.0704	.896	150	.0214			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.2081	.820	15	.3357	.820	117	-.1357	.984	00	-.0541
.752	180	-.0898	.820	38	.3030	.820	142	-.1653	.984	30	-.1163
.769	15	.2357	.820	58	.2306	.820	165	-.0928	.984	60	-.1286
.769	30	.2357	.820	68	.2112	.896	30	.4948	.984	90	-.0469
.769	50	.2173	.820	75	.1653	.896	50	.4846	.984	135	-.1612
.769	L	.2439	.820	81	.3214	.896	L	.3479	.984	180	-.1449
.769	90	-.0673	.820	88	-.1775	.896	U	-.0796			
.769	U	-.2102	.820	93	-.1745	.896	130	-.0439			
.769	135	-.2143	.820	103	-.1326	.896	150	-.0633			
$\alpha = 0^\circ; \beta = 5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.022	00	.1391	.223	135	.0924	.501	U	-.0457	.820	15	.1117
.022	90	.2325	.223	C	-.1452	.501	135	-.0355	.820	38	.0619
.022	180	.1330	.260	180	-.0873	.586	00	-.0487	.820	58	-.0193
.081	00	.1005	.280	00	-.0487	.586	180	-.0355	.820	68	-.0294
.081	45	.1614	.297	30	-.0376	.603	15	-.0437	.820	75	.0325
.081	90	.1939	.297	60	.0091	.603	30	-.0396	.820	81	.0751
.081	135	.1563	.297	L	.0254	.603	50	-.0132	.820	88	.0355
.081	180	.0944	.297	90	.0924	.603	L	-.0102	.820	93	.0234
.131	180	.0619	.297	U	.0538	.603	U	-.0041	.820	103	-.0162
.153	170	.2173	.297	135	-.0518	.603	135	-.0102	.820	117	-.0355
.170	00	.0284	.316	180	-.1208	.688	00	-.0325	.820	142	.0589
.170	30	.0619	.348	20	-.0325	.688	180	-.0294	.820	165	.1299
.170	60	.0893	.348	40	-.0213	.705	15	-.0376	.896	30	.1401
.170	90	.0985	.348	60	-.0234	.705	30	-.0325	.896	50	.1107
.170	135	.0731	.348	L	-.0294	.705	50	-.0264	.896	L	.0782
.170	166	.2234	.348	90	.0284	.705	L	-.0325	.896	U	.0721
.170	C	.3523	.348	U	-.0457	.705	U	.1665	.896	130	.0975
.187	150	.2041	.348	135	-.0843	.705	135	-.0030	.896	150	.1726
.187	C	.2975	.365	00	-.0437	.752	00	-.0325	.984	00	-.1371
.194	180	-.0010	.365	180	-.0203	.752	180	-.0162	.984	30	-.1563
.204	C	.2812	.484	00	-.0325	.769	15	-.0325	.984	60	-.0386
.214	00	.0010	.484	180	-.0325	.769	30	-.0325	.984	90	-.0162
.214	180	-.0518	.501	15	-.0376	.769	50	.0000	.984	135	-.1695
.223	22	.0122	.501	30	-.0376	.769	L	-.0030	.984	180	-.1462
.223	45	.0254	.501	50	-.0396	.769	90	.0061			
.223	67	.0396	.501	L	-.0396	.769	U	-.0193			
.223	90	.0477	.501	90	-.0426	.769	135	-.0193			



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TABLE II.- PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a) M = 2.30 - Continued

$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\theta$ , deg (a)	$C_p$
$\alpha = 10^\circ; \beta = 5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.022	00	.3581	.223	135	.0215	.501	U	-.2026	.820	15	.3468
.022	90	.2077	.223	C	-.1565	.501	135	-.0563	.820	38	.2691
.022	180	.0246	.260	180	-.1760	.586	00	.0471	.820	58	.1228
.081	00	.3130	.280	00	.0685	.586	180	-.0921	.820	68	.1095
.081	45	.3243	.297	30	.0747	.603	15	.0634	.820	75	.0634
.081	90	.1688	.297	60	.1084	.603	30	.0634	.820	81	.2373
.081	135	.0113	.297	L	.1504	.603	50	.0726	.820	88	-.1003
.081	180	.0082	.297	90	.0604	.603	L	.1698	.820	93	-.1289
.131	180	-.0143	.297	U	-.0829	.603	U	-.2220	.820	103	-.0379
.153	170	.0921	.297	135	-.0859	.603	135	-.0563	.820	117	-.1064
.170	00	.1913	.316	180	-.1064	.688	00	.0573	.820	142	-.0962
.170	30	.2189	.348	20	.0634	.688	180	-.0757	.820	165	-.1064
.170	60	.1739	.348	40	.0910	.705	15	.0962	.896	30	.3294
.170	90	.0726	.348	60	.1054	.705	30	.1136	.896	50	.3223
.170	135	-.0532	.348	L	.1115	.705	50	.1340	.896	L	.2834
.170	166	.0992	.348	90	.0020	.705	L	.1340	.896	U	-.0307
.170	C	.2414	.348	U	-.1637	.705	U	.0798	.896	130	.0870
.187	150	.0829	.348	135	-.1340	.705	135	-.0839	.896	150	.1095
.187	C	.2251	.365	00	.0409	.752	00	.0685	.984	00	-.0767
.194	180	-.1279	.365	180	-.0726	.752	180	-.0962	.984	30	-.1258
.204	C	.2537	.484	00	.0471	.769	15	.0962	.984	60	-.0900
.214	00	.1463	.484	180	-.1084	.769	30	.1187	.984	90	-.0767
.214	180	-.1504	.501	15	.0634	.769	50	.1299	.984	135	-.1852
.223	22	.1637	.501	30	.0747	.769	L	.1627	.984	180	-.1657
.223	45	.1340	.501	50	.0665	.769	90	-.0542			
.223	67	.0910	.501	L	.0604	.769	U	-.1003			
.223	90	.0215	.501	90	-.0951	.769	135	-.1003			

 $\alpha = 15^\circ; \beta = 5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.022	00	.4945	.223	135	-.0553	.501	U	-.2170	.820	15	.4996
.022	90	.1822	.223	C	-.1556	.501	135	-.2048	.820	38	.3993
.022	180	-.0184	.260	180	-.1751	.586	00	.1157	.820	58	.2488
.081	00	.4167	.280	00	.1546	.586	180	-.1014	.820	68	.2058
.081	45	.3961	.297	30	.1484	.603	15	.1433	.820	75	.1474
.081	90	.1372	.297	60	.1515	.603	30	.1198	.820	81	.3471
.081	135	-.0747	.297	L	.2037	.603	50	.1423	.820	88	-.1679
.081	180	-.0297	.297	90	.0348	.603	L	.2682	.820	93	-.1771
.131	180	-.0410	.297	U	-.1689	.603	U	-.2170	.820	103	-.0993
.153	170	.0256	.297	135	-.1362	.603	135	-.2078	.820	117	-.1351
.170	00	.2938	.316	180	-.0921	.688	00	.1372	.820	142	-.1443
.170	30	.3102	.348	20	.1321	.688	180	-.1239	.820	165	-.1771
.170	60	.1986	.348	40	.1484	.705	15	.1935	.896	30	.5436
.170	90	.0379	.348	60	.1873	.705	30	.2273	.896	50	.4945
.170	135	-.1331	.348	L	.1843	.705	50	.2396	.896	L	.4515
.170	166	.0317	.348	90	-.0164	.705	L	.2488	.896	U	-.0921
.170	C	.2160	.348	U	-.2078	.705	U	.3634	.896	130	-.0235
.187	150	.0092	.348	135	-.1822	.705	135	-.0696	.896	150	.0358
.187	C	.2099	.365	00	.1208	.752	00	.1597	.984	00	-.0205
.194	180	-.1751	.365	180	-.0655	.752	180	-.1443	.984	30	-.1577
.204	C	.2426	.484	00	.1269	.769	15	.1986	.984	60	-.1321
.214	00	.2488	.484	180	-.1014	.769	30	.2211	.984	90	-.0072
.214	180	-.1853	.501	15	.1484	.769	50	.2744	.984	135	-.1710
.223	22	.2600	.501	30	.1546	.769	L	.2785	.984	180	-.1679
.223	45	.1966	.501	50	.1392	.769	90	-.0399			
.223	67	.0983	.501	L	.1290	.769	U	-.2007			
.223	90	-.0041	.501	90	-.1525	.769	135	-.2037			

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.752	00	-.0650	.820	15	.1016	.820	117	-.0183	.984	00	-.1321
.752	180	-.0539	.820	38	.0843	.820	142	.0955	.984	30	-.1717
.769	15	-.0701	.820	58	-.0315	.820	165	.1870	.984	60	.0142
.769	30	-.0589	.820	68	-.0254	.896	30	.3597	.984	90	.0986
.769	50	-.0213	.820	75	.0406	.896	50	.1575	.984	135	-.1362
.769	L	-.0051	.820	81	.0793	.896	L	.1057	.984	180	-.1717
.769	90	.0305	.820	88	.0630	.896	U	.1311			
.769	U	-.0091	.820	93	.0467	.896	130	.1575			
.769	135	-.0284	.820	103	.0041	.896	150	.4013			

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.752	00	-.0092	.820	15	.4238	.820	117	-.0540	.984	00	-.0805
.752	180	-.0937	.820	38	.3291	.820	142	-.0672	.984	30	-.1487
.769	15	.0520	.820	58	.1121	.820	165	-.0214	.984	60	-.1039
.769	30	.0958	.820	68	.1059	.896	30	.5623	.984	90	.0570
.769	50	.1803	.820	75	.0764	.896	50	.4024	.984	135	-.1976
.769	L	.1803	.820	81	.2557	.896	L	.3341	.984	180	-.1915
.769	90	.0143	.820	88	-.0968	.896	U	.0896			
.769	U	-.1070	.820	93	-.1202	.896	130	.2099			
.769	135	-.1100	.820	103	-.0581	.896	150	.2292			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a)  $M = 2.30$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.0797	.820	15	.6456	.820	117	-.1164	.984	00	-.0378
.752	180	-.1226	.820	38	.4842	.820	142	-.1062	.984	30	-.1491
.769	15	.1573	.820	58	.2503	.820	165	-.0930	.984	60	-.1124
.769	30	.2125	.820	68	.2043	.896	30	.7957	.984	90	-.0020
.769	50	.2799	.820	75	.1583	.896	50	.5996	.984	135	-.1747
.769	L	.2962	.820	81	.3871	.896	L	.5087	.984	180	-.1777
.769	90	-.0245	.820	88	-.1450	.896	U	-.1420			
.769	U	-.1328	.820	93	-.1716	.896	130	.0930			
.769	135	-.1849	.820	103	-.1093	.896	150	.1297			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0703	.820	15	-.0815	.820	117	-.0673	.984	00	-.1620
.752	180	-.0611	.820	38	-.0754	.820	142	-.0805	.984	30	-.1651
.769	15	-.0428	.820	58	-.0744	.820	165	-.0968	.984	60	-.1885
.769	30	-.0316	.820	68	-.0826	.896	30	-.1396	.984	90	-.1977
.769	50	-.0581	.820	75	-.0041	.896	50	-.0938	.984	135	-.1590
.769	L	-.0285	.820	81	.0469	.896	L	-.1325	.984	180	-.1814
.769	90	-.0082	.820	88	.0041	.896	U	-.0968			
.769	U	-.0540	.820	93	.0010	.896	130	-.1070			
.769	135	-.0510	.820	103	-.0510	.896	150	-.1559			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0204	.820	15	.0408	.820	117	-.1202	.984	00	-.1101
.752	180	-.0999	.820	38	-.0143	.820	142	-.1101	.984	30	-.1101
.769	15	.0183	.820	58	-.0061	.820	165	-.1131	.984	60	-.0479
.769	30	.00571	.820	68	.0336	.896	30	-.0774	.984	90	-.1753
.769	50	.0367	.820	75	.0958	.896	50	-.0774	.984	135	-.1722
.769	L	.0795	.820	81	.1834	.896	L	-.0285	.984	180	-.1916
.769	90	-.0183	.820	88	-.0550	.896	U	-.0774			
.769	U	-.1131	.820	93	-.0153	.896	130	-.0836			
.769	135	-.1070	.820	103	-.0510	.896	150	-.1233			
$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0683	.820	15	.1243	.820	117	-.1427	.984	00	-.0713
.752	180	-.1131	.820	38	.0408	.820	142	-.1366	.984	30	-.0642
.769	15	.0071	.820	58	.0632	.820	165	-.1427	.984	60	-.0448
.769	30	.1182	.820	68	.1641	.896	30	.0143	.984	90	-.1753
.769	50	.1213	.820	75	.1641	.896	50	-.0611	.984	135	-.1620
.769	L	.1997	.820	81	.2323	.896	L	.0693	.984	180	-.2150
.769	90	-.0999	.820	88	-.1457	.896	U	-.0744			
.769	U	-.1590	.820	93	-.0550	.896	130	-.1039			
.769	135	-.1396	.820	103	-.0581	.896	150	-.1396			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0102	.820	15	.0459	.820	117	-.0224	.984	00	-.1590
.752	180	.0000	.820	38	.0285	.820	142	.0102	.984	30	-.1427
.769	15	-.0041	.820	58	.0041	.820	165	.0367	.984	60	-.1070
.769	30	-.0102	.820	68	-.0194	.896	30	.0000	.984	90	-.1070
.769	50	.0031	.820	75	.0132	.896	50	.0132	.984	135	-.0907
.769	L	.0000	.820	81	.0530	.896	L	.0204	.984	180	-.1722
.769	90	-.0092	.820	88	.0204	.896	U	.0234			
.769	U	-.0285	.820	93	.0163	.896	130	.0071			
.769	135	-.0194	.820	103	-.0194	.896	150	-.0255			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.1284	.820	15	.2232	.820	117	-.1202	.984	00	-.0938
.752	180	-.0744	.820	38	.1895	.820	142	-.1172	.984	30	-.0774
.769	15	.1345	.820	58	.1467	.820	165	-.0611	.984	60	-.1070
.769	30	.1345	.820	68	.1141	.896	30	.1345	.984	90	-.1335
.769	50	.1406	.820	75	.0724	.896	50	.1406	.984	135	-.1202
.769	L	.1467	.820	81	.1987	.896	L	.1508	.984	180	-.1624
.769	90	-.0907	.820	88	-.1141	.896	U	-.0520			
.769	U	-.1366	.820	93	-.0448	.896	130	.0000			
.769	135	-.1396	.820	103	-.0652	.896	150	-.1172			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2058	.820	15	.4107	.820	117	-.1366	.984	00	-.0418
.752	180	-.0774	.820	38	.3006	.820	142	-.1692	.984	30	-.0255
.769	15	.2334	.820	58	.2548	.820	165	-.0978	.984	60	-.0815
.769	30	.2283	.820	68	.2089	.896	30	.2120	.984	90	-.1529
.769	50	.2385	.820	75	.1569	.896	50	.2283	.984	135	-.1590
.769	L	.2476	.820	81	.3006	.896	L	.2313	.984	180	-.1916
.769	90	-.1141	.820	88	-.1824	.896	U	-.1070			
.769	U	-.1559	.820	93	-.1824	.896	130	-.1202			
.769	135	-.2211	.820	103	-.1294	.896	150	-.1661			



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a)  $M = 2.30$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0693	.820	15	-.1080	.820	117	-.0183	.984	00	-.1559
.752	180	-.0611	.820	38	-.0693	.820	142	-.0958	.984	30	-.1029
.769	15	-.0866	.820	58	-.0346	.820	165	-.1712	.984	60	-.0581
.769	30	-.0805	.820	68	-.0285	.896	30	-.1743	.984	90	-.0510
.769	50	-.0214	.820	75	-.0306	.896	50	-.1121	.984	135	-.0306
.769	L	-.0020	.820	81	-.0795	.896	L	-.0927	.984	180	-.1590
.769	U	-.0245	.820	88	-.0530	.896	U	-.1223			
.769	90	-.0183	.820	93	-.0438	.896	130	-.1223			
.769	135	-.0316	.820	103	-.0010	.896	150	-.1712			
$\alpha = 10^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0092	.820	15	-.4963	.820	117	-.0581	.984	00	-.1070
.752	180	-.0938	.820	38	-.3353	.820	142	-.0713	.984	30	-.0550
.769	15	-.0459	.820	58	-.1284	.820	165	-.0255	.984	60	-.1172
.769	30	-.0958	.820	68	-.1050	.896	30	-.3047	.984	90	-.0744
.769	50	-.1641	.820	75	-.0724	.896	50	-.2884	.984	135	-.0938
.769	L	-.1804	.820	81	-.2395	.896	L	-.2751	.984	180	-.1753
.769	90	-.0153	.820	88	-.0968	.896	U	-.0448			
.769	U	-.1233	.820	93	-.1233	.896	130	-.0306			
.769	135	-.1101	.820	103	-.0581	.896	150	-.0428			
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0754	.820	15	-.6481	.820	117	-.1162	.984	00	-.0774
.752	180	-.1233	.820	38	-.4983	.820	142	-.1162	.984	30	-.0153
.769	15	-.1416	.820	58	-.2721	.820	165	-.1131	.984	60	-.1162
.769	30	-.2028	.820	68	-.2008	.896	30	-.4362	.984	90	-.1131
.769	50	-.2762	.820	75	-.1549	.896	50	-.4035	.984	135	-.1427
.769	L	-.2986	.820	81	-.3638	.896	L	-.3801	.984	180	-.1814
.769	90	-.0642	.820	88	-.1488	.896	U	-.1529			
.769	U	-.1692	.820	93	-.1814	.896	130	-.0703			
.769	135	-.2079	.820	103	-.1131	.896	150	-.0082			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0724	.820	15	-.1121	.820	117	-.0611	.984	00	-.1773
.752	180	-.0581	.820	38	-.0785	.820	142	-.0785	.984	30	-.1478
.769	15	-.0448	.820	58	-.0683	.820	165	-.1141	.984	60	-.1345
.769	30	-.0448	.820	68	-.0785	.896	30	-.0683	.984	90	-.1580
.769	50	-.0520	.820	75	-.0143	.896	50	-.0479	.984	135	-.1182
.769	L	-.0255	.820	81	-.0571	.896	L	-.1315	.984	180	-.1844
.769	90	-.0020	.820	88	-.0143	.896	U	-.0948			
.769	U	-.0479	.820	93	-.0112	.896	130	-.0652			
.769	135	-.0448	.820	103	-.0448	.896	150	-.0815			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0173	.820	15	-.0510	.820	117	-.1152	.984	00	-.1478
.752	180	-.0948	.820	38	-.0173	.820	142	-.1050	.984	30	-.1213
.769	15	-.0214	.820	58	-.0061	.820	165	-.1111	.984	60	-.0550
.769	30	-.0550	.820	68	-.0275	.896	30	-.0041	.984	90	-.1610
.769	50	-.0367	.820	75	-.0999	.896	50	-.0285	.984	135	-.1447
.769	L	-.0836	.820	81	-.1987	.896	L	-.0897	.984	180	-.1906
.769	90	-.0153	.820	88	-.0489	.896	U	-.0683			
.769	U	-.1111	.820	93	-.0092	.896	130	-.0815			
.769	135	-.1050	.820	103	-.0459	.896	150	-.1080			
$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0724	.820	15	-.0122	.820	117	-.1416	.984	00	-.1050
.752	180	-.1121	.820	38	-.0438	.820	142	-.1345	.984	30	-.0815
.769	15	-.0102	.820	58	-.0601	.820	165	-.1416	.984	60	-.0326
.769	30	-.1284	.820	68	-.1620	.896	30	-.0764	.984	90	-.1478
.769	50	-.1294	.820	75	-.1692	.896	50	-.0560	.984	135	-.1345
.769	L	-.2048	.820	81	-.2609	.896	L	-.1457	.984	180	-.1906
.769	90	-.0948	.820	88	-.1478	.896	U	-.0724			
.769	U	-.1580	.820	93	-.0520	.896	130	-.1080			
.769	135	-.1386	.820	103	-.0560	.896	150	-.1253			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0051	.820	15	-.0510	.820	117	-.0194	.984	00	-.1580
.752	180	-.0041	.820	38	-.0336	.820	142	-.0132	.984	30	-.1213
.769	15	-.0061	.820	58	-.0102	.820	165	-.0397	.984	60	-.0560
.769	30	-.0051	.820	68	-.0122	.896	30	-.0795	.984	90	-.0520
.769	50	-.0041	.820	75	-.0204	.896	50	-.0927	.984	135	-.0387
.769	L	-.0102	.820	81	-.0601	.896	L	-.0601	.984	180	-.1814
.769	90	-.0031	.820	88	-.0306	.896	U	-.0438			
.769	U	-.0224	.820	93	-.0234	.896	130	-.0662			
.769	135	-.0163	.820	103	-.0163	.896	150	-.0571			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(a) M = 2.30 - Concluded

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.1274	.820	15	.2283	.820	117	-.1223	.984	00	-.0917
.752	180	-.0693	.820	38	.1997	.820	142	-.1223	.984	30	-.0591
.769	15	.1447	.820	58	.1610	.820	165	-.0591	.984	60	-.0825
.769	30	.1386	.820	68	.1223	.896	30	.2537	.984	90	-.0724
.769	50	.1447	.820	75	.0724	.896	50	.2731	.984	135	-.0917
.769	L	.1549	.820	81	.1977	.896	L	.2466	.984	180	-.1844
.769	90	-.0856	.820	88	-.1050	.896	U	-.0489			
.769	U	-.1315	.820	93	-.0428	.896	130	.0296			
.769	135	-.1345	.820	103	-.0693	.896	150	-.0591			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2058	.820	15	.3292	.820	117	-.1416	.984	00	-.0428
.752	180	-.0754	.820	38	.3006	.820	142	-.1743	.984	30	-.0122
.769	15	.2334	.820	58	.2680	.820	165	-.0988	.984	60	-.0856
.769	30	.2334	.820	68	.2150	.896	30	.3597	.984	90	-.1050
.769	50	.2415	.820	75	.1590	.896	50	.3964	.984	135	-.1284
.769	L	.2507	.820	81	.3078	.896	L	.3862	.984	180	-.1977
.769	90	-.1152	.820	88	-.1844	.896	U	-.1050			
.769	U	-.1549	.820	93	-.1814	.896	130	-.0622			
.769	135	-.2242	.820	103	-.1315	.896	150	-.1213			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0622	.820	15	.1355	.820	117	-.0183	.984	00	-.1610
.752	180	-.0581	.820	38	.0846	.820	142	.1009	.984	30	-.0581
.769	15	-.0785	.820	58	-.0285	.820	165	.1834	.984	60	-.0020
.769	30	-.0734	.820	68	-.0245	.896	30	.3597	.984	90	.0245
.769	50	-.0153	.820	75	.0346	.896	50	.2201	.984	135	.1376
.769	L	.0020	.820	81	.0876	.896	L	.1437	.984	180	-.1804
.769	90	.0316	.820	88	.0550	.896	U	.1671			
.769	U	-.0112	.820	93	.0050	.896	130	.2140			
.769	135	-.0285	.820	103	.0082	.896	150	.3526			
$\alpha = 10^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0163	.820	15	.4351	.820	117	-.0550	.984	00	-.1274
.752	180	-.0978	.820	38	.3281	.820	142	-.0642	.984	30	-.0153
.769	15	.0459	.820	58	.1345	.820	165	-.0245	.984	60	-.0285
.769	30	.0968	.820	68	.1111	.896	30	.4983	.984	90	.0020
.769	50	.1641	.820	75	.0774	.896	50	.4555	.984	135	-.0285
.769	L	.1875	.820	81	.2507	.896	L	.3923	.984	180	-.1967
.769	90	-.0020	.820	88	-.0978	.896	U	-.0418			
.769	U	-.1213	.820	93	-.1213	.896	130	.0713			
.769	135	-.1080	.820	103	-.0550	.896	150	.0907			
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0785	.820	15	.5961	.820	117	-.1141	.984	00	-.0846
.752	180	-.1172	.820	38	.4779	.820	142	-.1080	.984	30	-.0316
.769	15	.1467	.820	58	.2802	.820	165	-.1080	.984	60	-.0183
.769	30	.2140	.820	68	.2109	.896	30	.6247	.984	90	-.0245
.769	50	.2864	.820	75	.1610	.896	50	.5584	.984	135	-.0713
.769	L	.3098	.820	81	.3760	.896	L	.5554	.984	180	-.2171
.769	90	-.0642	.820	88	-.1508	.896	U	-.1641			
.769	U	-.1508	.820	93	-.1804	.896	130	-.0020			
.769	135	-.2008	.820	103	-.1111	.896	150	.0713			



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b)  $M = 2.88$ 

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
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 $\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.1178	.223	135	-.0634	.501	U	-.0188	.820	15	-.0812
.022	90	.0267	.223	C	-.1069	.501	135	-.0505	.820	38	-.0535
.022	180	.1128	.260	180	-.1069	.586	00	-.0812	.820	58	-.0614
.081	00	.0693	.280	00	-.0485	.586	180	-.0881	.820	68	-.0742
.081	45	.0049	.297	30	-.0861	.603	15	-.0535	.820	75	-.0010
.081	90	.0158	.297	60	-.0376	.603	30	-.0594	.820	81	.0366
.081	135	.0059	.297	L	-.0188	.603	50	-.0723	.820	88	.0238
.081	180	.0693	.297	90	-.0129	.603	L	-.0099	.820	93	.0049
.131	180	.0376	.297	U	-.0317	.603	U	.0000	.820	103	-.0455
.153	170	.0000	.297	135	-.0505	.603	135	-.0535	.820	117	-.0584
.170	00	.0158	.316	180	-.1188	.688	00	-.0594	.820	142	-.0485
.170	30	-.0327	.348	20	-.0921	.688	180	-.0752	.820	165	-.0871
.170	60	-.0267	.348	40	-.0535	.705	15	-.0485	.896	30	-.0614
.170	90	-.0228	.348	60	-.0505	.705	30	-.0485	.896	50	-.0871
.170	135	-.0346	.348	L	-.0317	.705	50	-.0723	.896	L	-.0901
.170	166	-.0129	.348	90	-.0376	.705	L	-.0346	.896	U	-.0515
.170	C	.0436	.348	U	-.0406	.705	U	.2207	.896	130	-.0772
.187	150	-.0287	.348	135	-.0346	.705	135	-.0139	.896	150	-.0802
.187	C	.0188	.365	00	-.0703	.752	00	-.0535	.984	00	-.1218
.194	180	-.0911	.365	180	-.0723	.752	180	-.0485	.984	30	-.1059
.204	C	.0059	.484	00	-.0812	.769	15	-.0436	.984	60	-.1188
.214	00	-.0059	.484	180	-.0881	.769	30	-.0436	.984	90	-.1247
.214	180	-.1099	.501	15	-.0594	.769	50	-.0614	.984	135	-.0960
.223	22	-.0485	.501	30	-.0594	.769	L	-.0327	.984	180	-.1188
.223	45	-.0594	.501	50	-.0723	.769	90	-.0040			
.223	67	-.0376	.501	L	-.0287	.769	U	-.0396			
.223	90	-.0346	.501	90	-.0188	.769	135	-.0426			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.3226	.223	135	-.0416	.501	U	-.1257	.820	15	-.0534
.022	90	-.0059	.223	C	-.1188	.501	135	-.0604	.820	38	-.0109
.022	180	-.0059	.260	180	-.1346	.586	00	-.0158	.820	58	-.0109
.081	00	.2791	.280	00	-.0693	.586	180	-.0604	.820	68	-.0040
.081	45	.0594	.297	30	-.0376	.603	15	-.0327	.820	75	.0554
.081	90	-.0376	.297	60	-.0940	.603	30	-.0693	.820	81	.1376
.081	135	-.0010	.297	L	-.0317	.603	50	-.0317	.820	88	-.0485
.081	180	-.0435	.297	90	-.0752	.603	L	.0208	.820	93	-.0168
.131	180	-.0594	.297	U	-.0782	.603	U	-.0881	.820	103	-.0426
.153	170	-.0604	.297	135	-.0881	.603	135	-.0722	.820	117	-.0831
.170	00	.1772	.316	180	-.1118	.688	00	.0158	.820	142	-.0713
.170	30	.0485	.348	20	-.0267	.688	180	-.0633	.820	165	-.0713
.170	60	-.0435	.348	40	-.0752	.705	15	-.0327	.896	30	-.0168
.170	90	-.0752	.348	60	-.0445	.705	30	-.0267	.896	50	-.0198
.170	135	-.0346	.348	L	-.0069	.705	50	-.0129	.896	L	-.0327
.170	166	-.0416	.348	90	-.0911	.705	L	.0208	.896	U	-.0515
.170	C	-.0633	.348	U	-.1128	.705	U	.2365	.896	130	-.0673
.187	150	-.0287	.348	135	-.0752	.705	135	-.0455	.896	150	-.0930
.187	C	-.0346	.365	00	.0376	.752	00	.0218	.984	00	-.0960
.194	180	-.1346	.365	180	-.0752	.752	180	-.0643	.984	30	-.0831
.204	C	-.0198	.484	00	.0426	.769	15	-.0327	.984	60	-.0673
.214	00	.1395	.484	180	-.0663	.769	30	.0158	.984	90	-.1148
.214	180	-.1405	.501	15	-.0218	.769	50	.0148	.984	135	-.1118
.223	22	.0376	.501	30	.0643	.769	L	.0307	.984	180	-.1346
.223	45	-.0376	.501	50	-.0287	.769	90	-.0426			
.223	67	-.0861	.501	L	-.0099	.769	U	-.0831			
.223	90	-.0911	.501	90	-.1188	.769	135	-.0772			

 $\alpha = 20^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.022	00	.6307	.223	135	-.1228	.501	U	-.1446	.820	15	.0436
.022	90	-.0535	.223	C	-.1446	.501	135	-.1406	.820	38	.1406
.022	180	-.0594	.260	180	-.1129	.586	00	.1891	.820	58	.1535
.081	00	.5337	.280	00	.2535	.586	180	-.0941	.820	68	.2574
.081	45	.1673	.297	30	.0703	.603	15	.1139	.820	75	.2416
.081	90	-.0802	.297	60	-.0663	.603	30	-.0129	.820	81	.2703
.081	135	-.0822	.297	L	.0208	.603	50	.0931	.820	88	-.0960
.081	180	-.0970	.297	90	-.1099	.603	L	.1277	.820	93	-.0901
.131	180	-.0911	.297	U	-.1129	.603	U	-.1317	.820	103	-.0960
.153	170	-.0851	.297	135	-.1257	.603	135	-.1317	.820	117	-.1089
.170	00	.4050	.316	180	-.1119	.688	00	.1891	.820	142	-.1277
.170	30	.1891	.348	20	.0970	.688	180	-.1376	.820	165	-.1158
.170	60	-.0050	.348	40	.0000	.705	15	.1188	.896	30	.1218
.170	90	-.1179	.348	60	.0337	.705	30	.0267	.896	50	.0931
.170	135	-.1188	.348	L	.0931	.705	50	.1277	.896	L	.1911
.170	166	-.0347	.348	90	-.1228	.705	L	.2020	.896	U	-.0842
.170	C	-.0941	.348	U	-.1406	.705	U	.2099	.896	130	-.1089
.187	150	-.0129	.348	135	-.1347	.705	135	-.1119	.896	150	-.1248
.187	C	-.1129	.365	00	.2050	.752	00	.2158	.984	00	-.0178
.194	180	-.1287	.365	180	-.0941	.752	180	-.1347	.984	30	-.0050
.204	C	-.0376	.484	00	.2109	.769	15	.1248	.984	60	.0178
.214	00	.3564	.484	180	-.0970	.769	30	.1455	.984	90	-.1218
.214	180	-.1257	.501	15	.1297	.769	50	.1723	.984	135	-.1188
.223	22	.1891	.501	30	.0436	.769	L	.2703	.984	180	-.1347
.223	45	.0396	.501	50	.0772	.769	90	-.0267			
.223	67	-.0644	.501	L	.1050	.769	U	-.1059			
.223	90	-.1228	.501	90	-.1257	.769	135	-.1277			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b) M = 2.88 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.1297	.223	135	.0307	.501	U	-.0258	.820	15	.0376
.022	90	.1188	.223	C	-.1000	.501	135	-.0158	.820	38	.0267
.022	180	.1188	.260	180	-.0506	.586	00	-.0109	.820	58	.0079
.081	00	.0970	.280	00	-.0268	.586	180	-.0129	.820	68	-.0010
.081	45	.1030	.297	30	-.0317	.603	15	-.0109	.820	75	.0119
.081	90	.0970	.297	60	-.0069	.603	30	-.0158	.820	81	.0466
.081	135	.0931	.297	L	.0059	.603	50	-.0129	.820	88	.0238
.081	180	.0921	.297	90	.0406	.603	L	.0030	.820	93	.0149
.131	180	.0645	.297	U	.0149	.603	U	.0030	.820	103	-.0169
.153	170	.1248	.297	135	-.0475	.603	135	-.0099	.820	117	-.0169
.170	00	.0376	.316	180	-.0714	.688	00	-.0109	.820	142	.0149
.170	30	.0376	.348	20	-.0218	.688	180	-.0099	.820	165	.0396
.170	60	.0327	.348	40	-.0218	.705	15	-.0050	.896	30	.0307
.170	90	.0337	.348	60	-.0228	.705	30	-.0050	.896	50	.0337
.170	135	.0337	.348	L	-.0288	.705	50	-.0069	.896	L	.0208
.170	166	.1178	.348	90	.0000	.705	L	-.0188	.896	U	.0208
.170	C	.2178	.348	U	-.0446	.705	U	.2647	.896	130	.0178
.187	150	.1030	.348	135	-.0406	.705	135	.0238	.896	150	.0119
.187	C	.1812	.365	00	-.0267	.752	00	-.0050	.984	00	-.1059
.194	180	.0218	.365	180	.0337	.752	180	.0050	.984	30	-.0772
.204	C	.1683	.484	00	-.0050	.769	15	.0000	.984	60	-.0673
.214	00	.0109	.484	180	-.0069	.769	30	.0000	.984	90	-.0673
.214	180	-.0288	.501	15	-.0050	.769	50	.0050	.984	135	-.0426
.223	22	.0059	.501	30	-.0109	.769	L	.0219	.984	180	-.1089
.223	45	.0030	.501	50	-.0188	.769	90	-.0040			
.223	67	.0059	.501	L	-.0288	.769	U	-.0079			
.223	90	.0030	.501	90	-.0406	.769	135	-.0079			

$\alpha = 5^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.2158	.223	135	.0247	.501	U	-.0663	.820	15	.1029
.022	90	.1188	.223	C	-.1039	.501	135	-.0346	.820	38	.0812
.022	180	.0703	.260	180	-.0693	.586	00	.0168	.820	58	.0495
.081	00	.1831	.280	00	.0168	.586	180	-.0228	.820	68	.0495
.081	45	.1564	.297	30	.0109	.603	15	.0168	.820	75	.0238
.081	90	.0970	.297	60	.0218	.603	30	.0089	.820	81	.1099
.081	135	.0594	.297	L	.0554	.603	50	.0089	.820	88	-.0297
.081	180	.0485	.297	90	.0435	.603	L	.0406	.820	93	-.0079
.131	180	.0327	.297	U	-.0158	.603	U	-.0445	.820	103	-.0267
.153	170	.0812	.297	135	-.0534	.603	135	-.0228	.820	117	-.0485
.170	00	.1029	.316	180	-.0713	.688	00	.0168	.820	142	-.0396
.170	30	.0920	.348	20	-.0049	.688	180	-.0188	.820	165	-.0040
.170	60	.0653	.348	40	.0109	.705	15	.0218	.896	30	.0871
.170	90	.0307	.348	60	.0188	.705	30	.0327	.896	50	.0871
.170	135	.0059	.348	L	.0247	.705	50	.0406	.896	L	.0742
.170	166	.0841	.348	90	.0030	.705	L	.0406	.896	U	-.0079
.170	C	.1593	.348	U	-.0693	.705	U	.2078	.896	130	-.0040
.187	150	.0772	.348	135	-.0812	.705	135	-.0139	.896	150	.0327
.187	C	.1366	.365	00	.0000	.752	00	.0267	.984	00	-.0871
.194	180	-.0158	.365	180	.0059	.752	180	-.0198	.984	30	-.0554
.204	C	.1366	.484	00	.0218	.769	15	.0594	.984	60	-.0643
.214	00	.0703	.484	180	-.0188	.769	30	.0485	.984	90	-.0673
.214	180	-.0534	.501	15	.0218	.769	50	.0525	.984	135	-.0614
.223	22	.0544	.501	30	.0168	.769	L	.0683	.984	180	-.1188
.223	45	.0337	.501	50	.0059	.769	90	-.0396			
.223	67	.0168	.501	L	.0000	.769	U	-.0554			
.223	90	.0000	.501	90	-.0633	.769	135	-.0455			

$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.3395	.223	135	-.0040	.501	U	-.1406	.820	15	.1782
.022	90	.1079	.223	C	-.1069	.501	135	-.0475	.820	38	.1455
.022	180	.0267	.260	180	-.0782	.586	00	.0653	.820	58	.1059
.081	00	.2861	.280	00	.0703	.586	180	-.0287	.820	68	.1099
.081	45	.2217	.297	30	.0436	.603	15	.0653	.820	75	.0841
.081	90	.0762	.297	60	.0277	.603	30	.0525	.820	81	.1980
.081	135	.0089	.297	L	.0841	.603	50	.0525	.820	88	-.0960
.081	180	.0168	.297	90	.0089	.603	L	-.0931	.820	93	-.0643
.131	180	.0000	.297	U	-.0911	.603	U	-.1445	.820	103	-.0643
.153	170	.0366	.297	135	-.0693	.603	135	-.0535	.820	117	-.0832
.170	00	.1782	.316	180	-.0772	.688	00	.0544	.820	142	-.0960
.170	30	.1515	.348	20	.0376	.688	180	-.0257	.820	165	-.0356
.170	60	.0812	.348	40	.0168	.705	15	.0544	.896	30	.1633
.170	90	.0089	.348	60	.0624	.705	30	.0703	.896	50	.1732
.170	135	-.0346	.348	L	.0683	.705	50	.0931	.896	L	.1574
.170	166	.0525	.348	90	-.0069	.705	L	.1000	.896	U	-.0396
.170	C	.0960	.348	U	-.1227	.705	U	.2207	.896	130	-.0554
.187	150	.0525	.348	135	-.1000	.705	135	-.0396	.896	150	-.0713
.187	C	.0960	.365	00	.0436	.752	00	.0653	.984	00	-.0515
.194	180	-.0346	.365	180	-.0228	.752	180	-.0396	.984	30	-.0198
.204	C	.1089	.484	00	.0653	.769	15	.0861	.984	60	-.0584
.214	00	.1346	.484	180	-.0287	.769	30	.1188	.984	90	-.0832
.214	180	-.0594	.501	15	.0653	.769	50	.1099	.984	135	-.0871
.223	22	.1188	.501	30	.0594	.769	L	.1317	.984	180	-.1188
.223	45	.0713	.501	50	.0495	.769	90	-.0455			
.223	67	.0218	.501	L	.0406	.769	U	-.0871			
.223	90	-.0228	.501	90	-.1069	.769	135	-.0871			



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TABLE II.- PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b)  $M = 2.88$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.4849	.223	135	-.0594	.501	U	-.1445	.820	15	.2751
.022	90	.0920	.223	C	-.1069	.501	135	-.1474	.820	38	.2484
.022	180	.0000	.260	180	-.0910	.586	00	.1346	.820	58	.2108
.081	00	.4097	.280	00	.1514	.586	180	-.0475	.820	68	.1949
.081	45	.2909	.297	30	.0970	.603	15	.1346	.820	75	.1662
.081	90	.0594	.297	60	.0307	.603	30	.1118	.820	81	.2998
.081	135	-.0475	.297	L	.1217	.603	50	.1178	.820	88	-.0831
.081	180	-.0049	.297	90	-.0069	.603	L	.1524	.820	93	-.1276
.131	180	-.0218	.297	U	-.1257	.603	U	-.1375	.820	103	-.1306
.153	170	.0059	.297	135	-.1039	.603	135	-.1474	.820	117	-.1088
.170	00	.2860	.316	180	-.0900	.688	00	.1296	.820	142	-.0990
.170	30	.2375	.348	20	.0970	.688	180	-.0445	.820	165	-.0613
.170	60	.1138	.348	40	.0485	.705	15	.1296	.896	30	.2553
.170	90	-.0069	.348	60	.1178	.705	30	.1405	.896	50	.2741
.170	135	-.0752	.348	L	.1247	.705	50	.1771	.896	L	.2553
.170	166	.0148	.348	90	-.0376	.705	L	.1900	.896	U	-.0871
.170	C	.0772	.348	U	-.1445	.705	U	.1850	.896	130	-.0802
.187	150	.0089	.348	135	-.1187	.705	135	-.1118	.896	150	-.0673
.187	C	.0871	.365	00	.1187	.752	00	.1346	.984	00	-.0079
.194	180	-.0406	.365	180	-.0188	.752	180	-.0673	.984	30	.0277
.204	C	.0999	.484	00	.1296	.769	15	.1672	.984	60	-.0297
.214	00	.2375	.484	180	-.0406	.769	30	.1890	.984	90	-.1029
.214	180	-.0693	.501	15	.1296	.769	50	.1949	.984	135	-.0831
.223	22	.2048	.501	30	.1187	.769	L	.2296	.984	180	-.1217
.223	45	.1217	.501	50	.1118	.769	90	-.0168			
.223	67	.0376	.501	L	.0960	.769	U	-.1029			
.223	90	-.0376	.501	90	-.1257	.769	135	-.1217			

$\alpha = 20^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.6587	.223	135	-.0753	.501	U	-.1506	.820	15	.4160
.022	90	.0812	.223	C	-.1159	.501	135	-.1595	.820	38	.3724
.022	180	-.0158	.260	180	-.0941	.586	00	.2318	.820	58	.3090
.081	00	.5616	.280	00	.2486	.586	180	-.0882	.820	68	.3090
.081	45	.3675	.297	30	.1674	.603	15	.2268	.820	75	.2684
.081	90	.0485	.297	60	.0466	.603	30	.2060	.820	81	.4299
.081	135	-.0782	.297	L	.1654	.603	50	.2060	.820	88	-.0713
.081	180	-.0317	.297	90	-.0129	.603	L	.2555	.820	93	-.1218
.131	180	-.0376	.297	U	-.1347	.603	U	-.1377	.820	103	-.1377
.153	170	-.0258	.297	135	-.1189	.603	135	-.1595	.820	117	-.1189
.170	00	.4160	.316	180	-.0990	.688	00	.2268	.820	142	-.0990
.170	30	.3348	.348	20	.1783	.688	180	-.1070	.820	165	-.1030
.170	60	.1515	.348	40	.0921	.705	15	.2219	.896	30	.3823
.170	90	-.0158	.348	60	.1813	.705	30	.2318	.896	50	.4071
.170	135	-.0852	.348	L	.1931	.705	50	.2843	.896	L	.3912
.170	166	-.0782	.348	90	-.0228	.705	L	.3031	.896	U	-.0961
.170	C	.0901	.348	U	-.1506	.705	U	.2169	.896	130	-.0990
.187	150	-.0782	.348	135	-.1347	.705	135	-.1060	.896	150	-.0931
.187	C	.0683	.365	00	.2110	.752	00	.2318	.984	00	.0555
.194	180	-.0565	.365	180	-.0753	.752	180	-.1119	.984	30	.0901
.204	C	-.0505	.484	00	.1296	.769	15	.2754	.984	60	.0079
.214	00	.3457	.484	180	-.0693	.769	30	.3021	.984	90	-.1060
.214	180	-.0882	.501	15	.2159	.769	50	.3031	.984	135	-.0743
.223	22	.2971	.501	30	.1941	.769	L	.3477	.984	180	-.1218
.223	45	.1773	.501	50	.1931	.769	90	.0208			
.223	67	.0545	.501	L	.1714	.769	U	-.1278			
.223	90	-.0446	.501	90	-.1317	.769	135	-.1307			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.1138	.223	135	.1594	.501	U	.0000	.820	15	-.0049
.022	90	.3138	.223	C	-.0475	.501	135	-.0257	.820	38	.0010
.022	180	.1029	.260	180	-.1099	.586	00	-.0802	.820	58	-.0010
.081	00	.0762	.280	00	-.0535	.586	180	-.0782	.820	68	-.0040
.081	45	.2118	.297	30	-.0099	.603	15	-.0643	.820	75	.0465
.081	90	.2762	.297	60	.0495	.603	30	-.0287	.820	81	.0970
.081	135	.1901	.297	L	.0871	.603	50	.0148	.820	88	.0624
.081	180	.0653	.297	90	.1742	.603	L	.0277	.820	93	.0465
.131	180	.0327	.297	U	.1218	.603	U	.0188	.820	103	.0119
.153	170	.2059	.297	135	.0366	.603	135	-.0129	.820	117	-.0040
.170	00	.0119	.316	180	-.1218	.688	00	-.0693	.820	142	.0208
.170	30	.0822	.348	20	-.0317	.688	180	-.0723	.820	165	.0020
.170	60	.1416	.348	40	-.0049	.705	15	-.0643	.896	30	.0208
.170	90	.1653	.348	60	.0277	.705	30	-.0426	.896	50	.1059
.170	135	.1059	.348	L	.0247	.705	50	.0030	.896	L	.0584
.170	166	.2178	.348	90	.1089	.705	L	.0000	.896	U	.0624
.170	C	.4435	.348	U	.0436	.705	U	.2267	.896	130	.1128
.187	150	.2148	.348	135	-.0040	.705	135	.0119	.896	150	.0366
.187	C	.4059	.365	00	-.0643	.752	00	-.0643	.984	00	-.1089
.194	180	-.0911	.365	180	-.0752	.752	180	-.0455	.984	30	-.0267
.204	C	.4217	.484	00	-.0802	.769	15	-.0643	.984	60	-.0238
.214	00	-.0099	.484	180	-.0812	.769	30	-.0426	.984	90	-.0267
.214	180	-.1099	.501	15	-.0535	.769	50	.0020	.984	135	.0307
.223	22	.0228	.501	30	-.0317	.769	L	.0238	.984	180	-.1119
.223	45	.0653	.501	50	.0030	.769	90	.0337			
.223	67	.1029	.501	L	.0119	.769	U	.0020			
.223	90	.1148	.501	90	.0366	.769	135	-.0139			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b) M = 2.88 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 10^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.3348	.223	135	.0654	.501	U	-.1070	.820	15	.2912
.022	90	.3190	.223	C	-.0634	.501	135	-.0535	.820	38	.2595
.022	180	-.0050	.260	180	-.1288	.586	00	.0267	.820	58	.1317
.081	00	.2863	.280	00	.0703	.586	180	-.0594	.820	68	.1347
.081	45	.3883	.297	30	.1139	.603	15	.0594	.820	75	.1100
.081	90	.2704	.297	60	.1654	.603	30	.0872	.820	81	.2556
.081	135	.0525	.297	L	.2150	.603	50	.1119	.820	88	-.0614
.081	180	-.0376	.297	90	.1595	.603	L	.1961	.820	93	.0931
.131	180	-.0535	.297	U	-.0188	.603	135	-.1189	.820	103	-.0485
.153	170	.0367	.297	135	-.0406	.603	135	-.0475	.820	117	-.0614
.170	00	.1783	.316	180	-.1090	.688	00	.0218	.820	142	-.0168
.170	30	.2595	.348	20	.0921	.688	180	-.0594	.820	165	.3219
.170	60	.2595	.348	40	.1298	.705	15	.0763	.896	30	.3249
.170	90	.1625	.348	60	.1466	.705	30	.1139	.896	50	.2774
.170	135	-.0099	.348	L	.1654	.705	50	.1555	.896	L	-.0584
.170	166	.0624	.348	90	.1179	.705	L	.1625	.896	U	.0149
.170	C	.3180				.705	U	.2298	.896	130	.0238
.187	150	.0812	.348	135	-.0723	.705	135	-.0426	.896	150	-.0743
.187	C	.3150	.365	00	.0436	.752	00	.0168	.984	00	.0495
.194	180	-.1288	.365	180	-.0753	.752	180	-.0544	.984	30	.0485
.204	C	.2962	.484	00	.0376	.769	15	.0763	.984	60	-.0456
.214	00	.1347	.484	180	-.0594	.769	30	.1080	.984	90	-.0327
.214	180	-.1347	.501	15	.0763	.769	50	.1446	.984	135	-.1278
.223	22	.1892	.501	30	.1030	.769	L	.1852			
.223	45	.2001	.501	50	.1119	.769	90	.0020			
.223	67	.1734	.501	L	.1179	.769	U	-.0872			
.223	90	.1090	.501	90	.0119	.769	135	-.0872			
$\alpha = 20^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.6399	.223	135	-.0376	.501	U	-.1506	.820	15	.7479
.022	90	.2853	.223	C	-.1100	.501	135	-.1377	.820	38	.6082
.022	180	-.0535	.260	180	-.1129	.586	00	.2041	.820	58	.3596
.081	00	.5428	.280	00	.2526	.586	180	-.0911	.820	68	.3596
.081	45	.5914	.297	30	.2744	.603	15	.2585	.820	75	.3051
.081	90	.2417	.297	60	.2774	.603	30	.2585	.820	81	.5676
.081	135	-.0446	.297	L	.3487	.603	50	.2932	.820	88	-.0327
.081	180	-.0862	.297	90	.1526	.603	L	.4398	.820	93	-.1119
.131	180	-.0971	.297	U	-.0783	.603	135	-.1506	.820	103	-.1466
.153	170	.0723	.297	135	-.1258	.603	135	-.1506	.820	117	-.1030
.170	00	.4091	.316	180	-.1119	.688	00	.2100	.820	142	-.1000
.170	30	.4785	.348	20	.2635	.688	180	-.1377	.820	165	-.0802
.170	60	.3606	.348	40	.2853	.705	15	.2902	.896	30	.6726
.170	90	.1426	.348	60	.3269	.705	30	.3546	.896	50	.6657
.170	135	-.0852	.348	L	.3299	.705	50	.3962	.896	L	.6251
.170	166	-.0505	.348	90	.1020	.705	L	.4111	.896	U	-.0802
.170	C	.0684	.348	U	-.1317	.705	U	.2011	.896	130	-.1119
.187	150	.0416	.348	135	-.1189	.705	135	-.0872	.896	150	-.0139
.187	C	.0713	.365	00	.2100	.752	00	.2150	.984	00	-.0050
.194	180	-.1189	.365	180	-.0911	.752	180	-.1248	.984	30	.1506
.204	C	.0396	.484	00	.2209	.769	15	.2962	.984	60	.0208
.214	00	.3497	.484	180	-.0941	.769	30	.3497	.984	90	-.1090
.214	180	-.1228	.501	15	.2684	.769	50	.3814	.984	135	-.0713
.223	22	.3982	.501	30	.2962	.769	L	.4418	.984	180	-.1308
.223	45	.3556	.501	50	.2893	.769	90	.0367			
.223	67	.2368	.501	L	.2803	.769	U	-.0802			
.223	90	.0961	.501	90	-.0347	.769	135	-.1060			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0585	.820	15	-.0793	.820	117	-.0575	.984	00	-.0952
.752	180	-.0476	.820	38	-.0585	.820	142	-.0476	.984	30	-.1051
.769	15	-.0416	.820	58	-.0605	.820	165	-.0853	.984	60	-.1111
.769	30	-.0476	.820	68	-.0764	.896	30	-.0059	.984	90	-.0952
.769	50	-.0605	.820	75	.0030	.896	50	-.0823	.984	135	-.1210
.769	L	-.0288	.820	81	.0387	.896	L	-.0892	.984	180	-.0982
.769	90	.0000	.820	88	.0258	.896	U	-.0506			
.769	U	-.0347	.820	93	.0030	.896	130	-.0764			
.769	135	-.0446	.820	103	-.0446	.896	150	-.0159			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.0228	.820	15	-.0526	.820	117	-.0823	.984	00	-.0506
.752	180	-.0635	.820	38	-.0099	.820	142	-.0664	.984	30	-.0922
.769	15	-.0307	.820	58	-.0099	.820	165	-.0664	.984	60	-.0764
.769	30	.0228	.820	68	-.0059	.896	30	.0635	.984	90	-.0734
.769	50	.0159	.820	75	.0605	.896	50	-.0159	.984	135	-.1299
.769	L	.0317	.820	81	.1468	.896	L	-.0288	.984	180	-.1111
.769	90	-.0347	.820	88	-.0506	.896	U	-.0506			
.769	U	-.0764	.820	93	-.0159	.896	130	-.0664			
.769	135	-.0764	.820	103	-.0416	.896	150	-.0892			



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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b) M = 2.88 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	.2170	.820	15	.0495	.820	117	-.1110	.984	00	.0446
.752	180	-.1328	.820	38	.1467	.820	142	-.1328	.984	30	-.0823
.769	15	.1249	.820	58	.1526	.820	165	-.1140	.984	60	-.0565
.769	30	.1526	.820	68	.2577	.896	30	.2963	.984	90	-.0446
.769	50	.1685	.820	75	.2458	.896	50	.1972	.984	135	-.1298
.769	L	.2676	.820	81	.2804	.896	L	.2012	.984	180	-.1080
.769	90	.0000	.820	88	-.1011	.896	U	-.0892			
.769	U	-.1011	.820	93	-.0951	.896	130	-.1110			
.769	135	-.1268	.820	103	-.0981	.896	150	-.1239			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	-.0050	.820	15	.0327	.820	117	-.0159	.984	00	-.0982
.752	180	.0069	.820	38	.0218	.820	142	.0129	.984	30	-.1052
.769	15	.0010	.820	58	.0099	.820	165	.0417	.984	60	-.0377
.769	30	-.0050	.820	68	-.0030	.896	30	.0446	.984	90	-.0417
.769	50	.0030	.820	75	.0129	.896	50	.1081	.984	135	-.1181
.769	L	.0099	.820	81	.0476	.896	L	.0228	.984	180	-.1111
.769	90	-.0030	.820	88	.0258	.896	U	.0189			
.769	U	-.0129	.820	93	.0129	.896	130	.0159			
.769	135	-.0099	.820	103	-.0189	.896	150	.0317			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	.0665	.820	15	.1796	.820	117	-.0893	.984	00	-.0665
.752	180	-.0407	.820	38	.1528	.820	142	-.1012	.984	30	-.0724
.769	15	.0873	.820	58	.1022	.820	165	-.0407	.984	60	-.0605
.769	30	.1042	.820	68	.1052	.896	30	.1726	.984	90	.0040
.769	50	.1091	.820	75	.0804	.896	50	.1945	.984	135	-.1210
.769	L	.1310	.820	81	.1945	.896	L	.1568	.984	180	-.1171
.769	90	-.0506	.820	88	-.1012	.896	U	-.0446			
.769	U	-.0893	.820	93	-.0695	.896	130	-.0605			
.769	135	-.0923	.820	103	-.0665	.896	150	-.0189			
$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	.2330	.820	15	.4115	.820	117	-.1210	.984	00	.0347
.752	180	-.1111	.820	38	.3956	.820	142	-.1051	.984	30	-.0416
.769	15	.2766	.820	58	.3371	.820	165	-.1111	.984	60	-.0476
.769	30	.3034	.820	68	.3054	.896	30	.4006	.984	90	-.0764
.769	50	.2985	.820	75	.2667	.896	50	.5146	.984	135	-.1269
.769	L	.3431	.820	81	.4264	.896	L	.3946	.984	180	-.1011
.769	90	.0228	.820	88	-.0764	.896	U	-.1081			
.769	U	-.1011	.820	93	-.1339	.896	130	-.1011			
.769	135	-.1398	.820	103	-.1398	.896	150	-.0793			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	-.0575	.820	15	-.0040	.820	117	-.0060	.984	00	-.0883
.752	180	-.0437	.820	38	-.0020	.820	142	.00169	.984	30	-.1111
.769	15	-.0635	.820	58	.0010	.820	165	.0010	.984	60	.0010
.769	30	-.0417	.820	68	-.0060	.896	30	.0169	.984	90	.1538
.769	50	.0040	.820	75	.0456	.896	50	.1062	.984	135	-.0823
.769	L	.0228	.820	81	.1032	.896	L	.0585	.984	180	-.1081
.769	90	.0327	.820	88	.0645	.896	U	.0615			
.769	U	-.0149	.820	93	.0456	.896	130	.1151			
.769	135	-.0149	.820	103	.0099	.896	150	.0387			
$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	.0119	.820	15	.2876	.820	117	-.0605	.984	00	-.0535
.752	180	-.0605	.820	38	.2657	.820	142	-.0635	.984	30	-.0982
.769	15	.0664	.820	58	.1468	.820	165	-.0188	.984	60	-.0416
.769	30	.0932	.820	68	.1339	.896	30	.3213	.984	90	.0387
.769	50	.1368	.820	75	.1081	.896	50	.3242	.984	135	-.1140
.769	L	.1844	.820	81	.2578	.896	L	.2766	.984	180	-.1210
.769	90	.0069	.820	88	-.0605	.896	U	-.0506			
.769	U	-.0734	.820	93	-.0952	.896	130	.1527			
.769	135	-.0853	.820	103	-.0506	.896	150	.1339			
$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$											
.752	00	.2062	.820	15	.7516	.820	117	-.1051	.984	00	.0288
.752	180	-.1239	.820	38	.6059	.820	142	-.0982	.984	30	-.0793
.769	15	.2925	.820	58	.3560	.820	165	-.0793	.984	60	-.0059
.769	30	.3471	.820	68	.3560	.896	30	.8141	.984	90	-.0506
.769	50	.3818	.820	75	.3084	.896	50	.7437	.984	135	-.1081
.769	L	.4422	.820	81	.5662	.896	L	.6644	.984	180	-.1111
.769	90	.0367	.820	88	-.0377	.896	U	-.0853			
.769	U	-.1140	.820	93	-.1239	.896	130	-.0734			
.769	135	-.1140	.820	103	-.1497	.896	150	.0506			

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TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b) M = 2.88 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0594	.820	15	-.0703	.820	117	-.0614	.984	00	-.1118
.752	180	-.0515	.820	38	-.0544	.820	142	-.0515	.984	30	-.1188
.769	15	-.0436	.820	58	-.0614	.820	165	-.0831	.984	60	-.1247
.769	30	-.0436	.820	68	-.0831	.896	30	-.0901	.984	90	-.1376
.769	50	-.0614	.820	75	-.0669	.896	50	-.0831	.984	135	-.1148
.769	L	-.0356	.820	81	.0337	.896	L	-.0960	.984	180	-.1188
.769	90	-.0069	.820	88	.0119	.896	U	-.0544			
.769	U	-.0426	.820	93	.0020	.896	130	-.0584			
.769	135	-.0455	.820	103	-.0455	.896	150	-.0990			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0109	.820	15	-.0168	.820	117	-.0831	.984	00	-.0703
.752	180	-.0703	.820	38	-.0109	.820	142	-.0703	.984	30	-.0772
.769	15	-.0327	.820	58	-.0069	.820	165	-.0742	.984	60	-.0960
.769	30	.0158	.820	68	-.0069	.896	30	-.0703	.984	90	-.1247
.769	50	.0178	.820	75	.0594	.896	50	-.0426	.984	135	-.1148
.769	L	.0307	.820	81	.1257	.896	L	-.0139	.984	180	-.1376
.769	90	-.0614	.820	88	-.0584	.896	U	-.0544			
.769	U	-.0901	.820	93	-.0198	.896	130	-.0614			
.769	135	-.0802	.820	103	-.0426	.896	150	-.0901			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	.00	-.0049	.820	15	.0376	.820	117	-.0168	.984	00	-.1089
.752	180	.0020	.820	38	.0218	.820	142	.0119	.984	30	-.0901
.769	15	.0000	.820	58	.0059	.820	165	.0406	.984	60	-.0802
.769	30	-.0049	.820	68	-.0040	.896	30	.0119	.984	90	-.0831
.769	50	.0020	.820	75	.0059	.896	50	.0277	.984	135	-.0544
.769	L	.0089	.820	81	.0436	.896	L	.0247	.984	180	-.1148
.769	90	-.0099	.820	88	.0178	.896	U	.0218			
.769	U	-.0168	.820	93	.0148	.896	130	.0148			
.769	135	-.0099	.820	103	-.0168	.896	150	-.0069			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0703	.820	15	.1831	.820	117	-.0901	.984	00	-.0584
.752	180	-.0386	.820	38	.1514	.820	142	-.0960	.984	30	-.0327
.769	15	.0921	.820	58	.1198	.820	165	-.0426	.984	60	-.0673
.769	30	.1079	.820	68	.1069	.896	30	.1257	.984	90	-.1019
.769	50	.1198	.820	75	.0812	.896	50	.1455	.984	135	-.0990
.769	L	.1356	.820	81	.1831	.896	L	.1613	.984	180	-.1277
.769	90	-.0831	.820	88	-.1019	.896	U	-.0455			
.769	U	-.1148	.820	93	-.0703	.896	130	-.0673			
.769	135	-.0930	.820	103	-.0614	.896	150	-.0901			
$\alpha = 20^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2376	.820	15	.4147	.820	117	-.1247	.984	00	.0406
.752	180	-.1148	.820	38	.3771	.820	142	-.1059	.984	30	.0624
.769	15	.2692	.820	58	.3355	.820	165	-.1277	.984	60	.0020
.769	30	.3019	.820	68	.3098	.896	30	.3197	.984	90	-.1148
.769	50	.3256	.820	75	.2593	.896	50	.3227	.984	135	-.0960
.769	L	.3484	.820	81	.4019	.896	L	.3642	.984	180	-.1346
.769	90	-.0198	.820	88	-.0831	.896	U	-.1247			
.769	U	-.1435	.820	93	-.1505	.896	130	-.1118			
.769	135	-.1534	.820	103	-.1406	.896	150	-.1188			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0534	.820	15	-.0049	.820	117	-.0069	.984	00	-.1019
.752	180	-.0455	.820	38	-.0049	.820	142	.0089	.984	30	-.0544
.769	15	-.0703	.820	58	.0049	.820	165	-.0040	.984	60	-.0356
.769	30	-.0376	.820	68	-.0040	.896	30	.0119	.984	90	-.0356
.769	50	.0119	.820	75	.0465	.896	50	.1039	.984	135	.0307
.769	L	.0307	.820	81	.0940	.896	L	.0693	.984	180	-.1019
.769	90	.0307	.820	88	.0564	.896	U	.0752			
.769	U	.0020	.820*	93	.0465	.896	130	.1128			
.769	135	-.0139	.820	103	.0119	.896	150	.0277			
$\alpha = 10^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0000	.820	15	.3058	.820	117	-.0584	.984	00	-.0713
.752	180	-.0614	.820	38	.2475	.820	142	-.0643	.984	30	.0307
.769	15	.0584	.820	58	.1475	.820	165	-.0238	.984	60	-.0584
.769	30	.1019	.820	68	.1346	.896	30	.2682	.984	90	-.0554
.769	50	.1633	.820	75	.1099	.896	50	.2841	.984	135	-.0356
.769	L	.1920	.820	81	.2296	.896	L	.2712	.984	180	-.1188
.769	90	-.0238	.820	88	-.0643	.896	U	-.0713			
.769	U	-.0871	.820	93	-.0990	.896	130	.0238			
.769	135	-.0960	.820	103	-.0485	.896	150	.0208			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b)  $M = 2.88$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 20^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2059	.820	15	.8166	.820	117	-.1089	.984	00	-.0010
.752	180	-.1505	.820	38	.6058	.820	142	-.1148	.984	30	.1168
.769	15	.2811	.820	58	.3811	.820	165	-.1217	.984	60	-.0129
.769	30	.3464	.820	68	.3583	.896	30	.5652	.984	90	-.1148
.769	50	.4088	.820	75	.2979	.896	50	.5622	.984	135	-.0990
.769	L	.4415	.820	81	.5523	.896	L	.5652	.984	180	-.1376
.769	90	-.0099	.820	88	-.0416	.896	U	-.1406			
.769	U	-.1148	.820	93	-.1505	.896	130	-.1277			
.769	135	-.1307	.820	103	-.1534	.896	150	-.0386			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0624	.820	15	-.0792	.820	117	-.0624	.984	00	-.1178
.752	180	-.0495	.820	38	-.0574	.820	142	-.0495	.984	30	-.1010
.769	15	-.0465	.820	58	-.0624	.820	165	-.0921	.984	60	-.1109
.769	30	-.0465	.820	68	-.0822	.896	30	-.0624	.984	90	-.1237
.769	50	-.0594	.820	75	-.0049	.896	50	-.0881	.984	135	-.0851
.769	L	-.0337	.820	81	.0376	.896	L	-.0980	.984	180	-.1237
.769	90	-.0079	.820	88	.0148	.896	U	-.0564			
.769	U	-.0396	.820	93	.0020	.896	130	-.0792			
.769	135	-.0465	.820	103	-.0436	.896	150	-.0693			
$\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0079	.820	15	-.0515	.820	117	-.0822	.984	00	-.0950
.752	180	-.0693	.820	38	-.0030	.820	142	-.0693	.984	30	-.0822
.769	15	-.0247	.820	58	-.0049	.820	165	-.0693	.984	60	-.0465
.769	30	.0247	.820	68	-.0010	.896	30	.0049	.984	90	-.1138
.769	50	.0218	.820	75	.0663	.896	50	.0049	.984	135	-.0980
.769	L	.0346	.820	81	.1307	.896	L	-.0337	.984	180	-.1336
.769	90	-.0594	.820	88	-.0564	.896	U	-.0525			
.769	U	-.0921	.820	93	-.0179	.896	130	-.0653			
.769	135	-.0792	.820	103	-.0396	.896	150	-.0881			
$\alpha = 20^\circ; \beta = -10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2059	.820	15	.0356	.820	117	-.1178	.984	00	-.0079
.752	180	-.1465	.820	38	.1396	.820	142	-.1366	.984	30	-.0010
.769	15	.1346	.820	58	.1544	.820	165	-.1307	.984	60	.0049
.769	30	.1505	.820	68	.2732	.896	30	.1702	.984	90	-.1307
.769	50	.1891	.820	75	.2603	.896	50	.1505	.984	135	-.1109
.769	L	.2801	.820	81	.2771	.896	L	.3157	.984	180	-.1396
.769	90	-.0366	.820	88	-.1039	.896	U	-.0980			
.769	U	-.1267	.820	93	-.1010	.896	130	-.1138			
.769	135	-.1366	.820	103	-.0980	.896	150	-.1307			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0020	.820	15	.0416	.820	117	-.0139	.984	00	-.1109
.752	180	.0049	.820	38	.0307	.820	142	.0148	.984	30	-.0723
.769	15	.0030	.820	58	-.0119	.820	165	.0436	.984	60	-.0495
.769	30	.0030	.820	68	-.0010	.896	30	.0564	.984	90	-.0465
.769	50	.0049	.820	75	.0079	.896	50	.0505	.984	135	-.0267
.769	L	.0148	.820	81	.0475	.896	L	.0218	.984	180	-.1237
.769	90	-.0079	.820	88	.0218	.896	U	.0218			
.769	U	-.0139	.820	93	.0148	.896	130	.0277			
.769	135	-.0079	.820	103	-.0178	.896	150	.0436			
$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0742	.820	15	.1891	.820	117	-.0881	.984	00	-.0594
.752	180	-.0366	.820	38	.1505	.820	142	-.0980	.984	30	-.0109
.769	15	.0960	.820	58	.1247	.820	165	-.0436	.984	60	-.0465
.769	30	.1128	.820	68	.1148	.896	30	.2178	.984	90	-.0624
.769	50	.1277	.820	75	.0861	.896	50	.2178	.984	135	-.0693
.769	L	.1376	.820	81	.1821	.896	L	.1732	.984	180	-.1336
.769	90	-.0822	.820	88	-.1010	.896	U	-.0465			
.769	U	-.1178	.820	93	-.0693	.896	130	-.0465			
.769	135	-.0921	.820	103	-.0624	.896	150	-.0564			
$\alpha = 20^\circ; \beta = 0^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2435	.820	15	.4246	.820	117	-.1237	.984	00	.0406
.752	180	-.1138	.820	38	.3860	.820	142	-.1049	.984	30	.0950
.769	15	.2821	.820	58	.3395	.820	165	-.1237	.984	60	.0020
.769	30	.3098	.820	68	.3177	.896	30	.4721	.984	90	-.1079
.769	50	.3365	.820	75	.2663	.896	50	.5008	.984	135	-.0564
.769	L	.3563	.820	81	.4108	.896	L	.4692	.984	180	-.1336
.769	90	-.0178	.820	88	-.0792	.896	U	-.1237			
.769	U	-.1435	.820	93	-.1495	.896	130	-.0851			
.769	135	-.1524	.820	103	-.1396	.896	150	-.0723			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(b) M = 2.88 - Concluded

$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0574	.820	15	-.0030	.820	117	-.0079	.984	00	-.1109
.752	180	-.0495	.820	38	-.0030	.820	142	-.0079	.984	30	-.0208
.769	15	-.0732	.820	58	.0020	.820	165	-.0079	.984	60	-.0178
.769	30	-.0406	.820	68	-.0049	.896	30	.0604	.984	90	.0020
.769	50	.0079	.820	75	.00436	.896	50	.1247	.984	135	.0822
.769	L	.0277	.820	81	.0950	.896	L	.0534	.984	180	-.1208
.769	90	.0277	.820	88	.0564	.896	U	.0564			
.769	U	-.0010	.820	93	.0475	.896	130	.1376			
.769	135	-.0178	.820	103	.0119	.896	150	.0861			
$\alpha = 10^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.0139	.820	15	.3207	.820	117	-.0594	.984	00	-.0723
.752	180	-.0653	.820	38	.2712	.820	142	-.0653	.984	30	.0663
.769	15	.0683	.820	58	.1534	.820	165	-.0208	.984	60	-.0049
.769	30	.1069	.820	68	.1406	.896	30	.4563	.984	90	-.0139
.769	50	.1663	.820	75	.1148	.896	50	.3989	.984	135	-.0079
.769	L	.1920	.820	81	.2376	.896	L	.3177	.984	180	-.1366
.769	90	-.0238	.820	88	-.0653	.896	U	-.0693			
.769	U	-.0851	.820	93	-.0980	.896	130	.0208			
.769	135	-.0980	.820	103	-.0465	.896	150	.0406			
$\alpha = 20^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$											
.752	00	.2158	.820	15	.7671	.820	117	-.1079	.984	00	.0119
.752	180	-.1465	.820	38	.6414	.820	142	-.1178	.984	30	.1693
.769	15	.2920	.820	58	.3920	.820	165	-.1138	.984	60	.0633
.769	30	.3573	.820	68	.3692	.896	30	.8304	.984	90	-.0921
.769	50	.4217	.820	75	.3078	.896	50	.8047	.984	135	-.0396
.769	L	.4563	.820	81	.5563	.896	L	.7473	.984	180	-.1435
.769	90	-.0049	.820	88	-.0396	.896	U	-.1307			
.769	U	-.1109	.820	93	-.1495	.896	130	-.0921			
.769	135	-.1237	.820	103	-.1524	.896	150	.0079			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c)  $M = 4.65$ 

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
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$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.1237	.223	135	-.0346	.501	U	-.0132	.820	15	-.0478
.022	90	.0330	.223	C	-.0445	.501	135	-.0346	.820	38	-.0396
.022	180	.1138	.260	180	-.0445	.586	00	-.0396	.820	58	-.0396
.081	00	.0874	.280	00	-.0214	.586	180	-.0445	.820	68	-.0280
.081	45	.0066	.297	30	-.0478	.603	15	-.0478	.820	75	-.0445
.081	90	.0066	.297	60	-.0346	.603	30	-.0346	.820	81	.0082
.081	135	.0379	.297	L	-.0346	.603	50	-.0346	.820	88	.0033
.081	180	.0692	.297	90	-.0132	.603	L	-.0297	.820	93	-.0132
.131	180	.0429	.297	U	-.0181	.603	U	-.0082	.820	103	-.0346
.153	170	.0280	.297	135	-.0247	.603	135	-.0445	.820	117	-.0396
.170	00	.0247	.316	180	-.0445	.688	00	-.0478	.820	142	-.0346
.170	30	-.0214	.348	20	-.0577	.688	180	-.0396	.820	165	-.0445
.170	60	-.0214	.348	40	-.0396	.705	15	-.0396	.896	30	-.0346
.170	90	-.0082	.348	60	-.0396	.705	30	-.0396	.896	50	-.0396
.170	135	-.0132	.348	L	-.0396	.705	50	-.0346	.896	L	-.0445
.170	166	.0132	.348	90	-.0247	.705	L	-.0346	.896	U	-.0346
.170	C	.0758	.348	U	-.0297	.705	U	.2473	.896	130	-.0445
.187	150	-.0033	.348	135	-.0346	.705	135	-.0231	.896	150	-.0396
.187	C	.0495	.365	00	-.0396	.752	00	-.0478	.984	00	-.0495
.194	180	-.0082	.365	180	-.0445	.752	180	-.0280	.984	30	-.0396
.204	C	.0280	.484	00	-.0396	.769	00	-.0396	.984	60	-.0561
.214	00	-.0066	.484	180	-.0495	.769	30	-.0396	.984	90	-.0445
.214	180	-.0346	.501	15	-.0478	.769	50	-.0280	.984	135	-.0495
.223	22	-.0214	.501	30	-.0396	.769	L	-.0396	.984	180	-.0396
.223	45	-.0346	.501	50	-.0396	.769	90	.0132			
.223	67	-.0297	.501	L	-.0247	.769	U	-.0280			
.223	90	-.0181	.501	90	-.0247	.769	135	-.0346			

$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.4732	.223	135	-.0445	.501	U	-.0495	.820	15	.0412
.022	90	.0148	.223	C	-.0561	.501	135	-.0495	.820	38	.0692
.022	180	.0231	.260	180	-.0495	.586	00	.1319	.820	58	.0660
.081	00	.3924	.280	00	.1682	.586	180	-.0396	.820	68	.0989
.081	45	.1500	.297	30	.0511	.603	15	.0775	.820	75	.1088
.081	90	-.0115	.297	60	-.0132	.603	30	-.0445	.820	81	.0824
.081	135	.0181	.297	L	.0181	.603	50	.0330	.820	88	-.0280
.081	180	-.0115	.297	90	-.0346	.603	L	.0594	.820	93	-.0346
.131	180	-.0115	.297	U	-.0445	.603	U	-.0495	.820	103	-.0396
.153	170	-.0297	.297	135	-.0495	.603	135	-.0495	.820	117	-.0396
.170	00	.3116	.316	180	-.0346	.688	00	.1319	.820	142	-.0495
.170	30	.1500	.348	20	.0775	.688	180	-.0495	.820	165	-.0445
.170	60	.0412	.348	40	.0148	.705	15	.0692	.896	30	.0561
.170	90	-.0297	.348	60	.0066	.705	30	.0231	.896	50	.0511
.170	135	-.0346	.348	L	.0330	.705	50	.0379	.896	L	.0775
.170	166	-.0247	.348	90	-.0396	.705	L	.0808	.896	U	-.0280
.170	C	-.0297	.348	U	-.0495	.705	U	.3215	.896	130	-.0445
.187	150	-.0181	.348	135	-.0495	.705	135	-.0231	.896	150	-.0445
.187	C	-.0297	.365	00	.1220	.752	00	.1220	.984	00	-.0082
.194	180	-.0396	.365	180	-.0396	.752	180	-.0396	.984	30	.0033
.204	C	-.0297	.484	00	.1319	.769	15	.0692	.984	60	-.0132
.214	00	.2490	.484	180	-.0346	.769	30	.0231	.984	90	-.0346
.214	180	-.0495	.501	15	.0775	.769	50	.0610	.984	135	-.0445
.223	22	.1319	.501	30	.0330	.769	L	.1039	.984	180	-.0346
.223	45	.0379	.501	50	.0280	.769	90	.0198			
.223	67	-.0033	.501	L	.0544	.769	U	-.0181			
.223	90	-.0445	.501	90	-.0495	.769	135	-.0346			

$\alpha = 28^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.5903	.223	135	-.0495	.501	U	-.0561	.820	15	.0208
.022	90	-.0033	.223	C	-.0561	.501	135	-.0610	.820	38	.2935
.022	180	-.0478	.260	180	-.0561	.586	00	.4188	.820	58	.2786
.081	00	.6167	.280	00	.4633	.586	180	-.0561	.820	68	.4435
.081	45	.2028	.297	30	.2127	.603	15	.3017	.820	75	.4122
.081	90	-.0214	.297	60	.0330	.603	30	.1913	.820	81	.3693
.081	135	-.0033	.297	L	.0280	.603	50	.2012	.820	88	.0198
.081	180	-.0478	.297	90	-.0247	.603	L	.2539	.820	93	-.0346
.131	180	-.0478	.297	U	-.0610	.603	U	-.0495	.820	103	-.0495
.153	170	-.0396	.297	135	-.0610	.603	135	-.0610	.820	117	-.0445
.170	00	.6068	.316	180	-.0445	.688	00	.4188	.820	142	-.0495
.170	30	.3380	.348	20	.2490	.688	180	-.0610	.820	165	-.0396
.170	60	.0775	.348	40	.1138	.705	15	.3116	.896	30	.2374
.170	90	-.0346	.348	60	.1121	.705	30	.1946	.896	50	.2572
.170	135	-.0561	.348	L	.1171	.705	50	.2325	.896	L	.3479
.170	166	-.0396	.348	90	.1847	.705	L	.3578	.896	U	-.0231
.170	C	-.0445	.348	U	-.0660	.705	U	.3166	.896	130	-.0561
.187	150	-.0445	.348	135	-.0660	.705	135	-.0396	.896	150	-.0495
.187	C	-.0396	.365	00	.4007	.752	00	.4188	.984	00	.0660
.194	180	-.0610	.365	180	-.0610	.752	180	-.0495	.984	30	.0940
.204	C	-.0396	.484	00	.4106	.769	15	.3116	.984	60	.0660
.214	00	.5441	.484	180	-.0610	.769	30	.1847	.984	90	-.0396
.214	180	-.0561	.501	15	.2116	.769	50	.2737	.984	135	-.0495
.223	22	.3561	.501	30	.1946	.769	L	.4485	.984	180	-.0445
.223	45	.1484	.501	50	.1599	.769	90	.0940			
.223	67	.0231	.501	L	.2110	.769	U	-.0495			
.223	90	-.0396	.501	90	-.0495	.769	135	-.0445			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c) M = 4.65 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
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$\alpha = 0^\circ$ ;  $\beta = 0^\circ$ ;  $\delta_V = 0^\circ$ ;  $\delta_S = 0^\circ$

.022	00	.1764	.223	135	.0379	.501	U	-.0297	.820	15	.0066
.022	90	.1138	.223	C	-.0346	.501	135	-.0198	.820	38	.0066
.022	180	.1039	.260	180	.0297	.586	00	-.0115	.820	58	.0033
.081	00	.0956	.280	00	-.0115	.586	180	-.0082	.820	68	.0082
.081	45	.0956	.297	30	-.0115	.603	15	-.0115	.820	75	-.0016
.081	90	.0956	.297	60	.0016	.603	30	-.0198	.820	81	.0082
.081	135	.1055	.297	L	.0181	.603	50	-.0132	.820	88	-.0016
.081	180	.0775	.297	90	.0429	.603	L	-.0082	.820	93	-.0016
.131	180	.0594	.297	U	.0231	.603	U	-.0082	.820	103	-.0181
.153	170	.1121	.297	135	-.0132	.603	135	-.0132	.820	117	-.0082
.170	00	.0511	.316	180	-.0346	.688	00	-.0115	.820	142	-.0016
.170	30	.0412	.348	20	-.0214	.688	180	-.0132	.820	165	.0181
.170	60	.0330	.348	40	-.0115	.705	15	-.0115	.896	30	.0247
.170	90	.0429	.348	60	-.0082	.705	30	-.0115	.896	50	.0132
.170	135	.0429	.348	L	-.0082	.705	50	-.0082	.896	L	.0033
.170	166	.1006	.348	90	.0115	.705	L	-.0132	.896	U	.0033
.170	C	.2424	.348	U	-.0082	.705	U	-.1665	.896	130	-.0016
.187	150	.0857	.348	135	-.0198	.705	135	.0082	.896	150	.0033
.187	C	.2061	.365	00	-.0214	.752	00	-.0115	.984	00	-.0445
.194	180	.0330	.365	180	.0066	.752	180	.0033	.984	30	-.0280
.204	C	.1847	.484	00	-.0115	.769	15	-.0033	.984	60	-.0396
.214	00	.0148	.484	180	-.0033	.769	30	.0066	.984	90	-.0346
.214	180	-.0033	.501	15	-.0115	.769	50	.0082	.984	135	-.0280
.223	22	.0148	.501	30	-.0214	.769	L	.0132	.984	180	-.0396
.223	45	.0115	.501	50	-.0132	.769	90	.0082			
.223	67	.0066	.501	L	-.0198	.769	U	.0033			
.223	90	.0115	.501	90	-.0198	.769	135	.0033			

$\alpha = 5^\circ$ ;  $\beta = 0^\circ$ ;  $\delta_V = 0^\circ$ ;  $\delta_S = 0^\circ$

.022	00	.2127	.223	135	.0231	.501	U	-.0445	.820	15	.0594
.022	90	.1138	.223	C	-.0297	.501	135	-.0247	.820	38	.0511
.022	180	.0594	.260	180	-.0346	.586	00	.0247	.820	58	.0396
.081	00	.1946	.280	00	.0429	.586	180	-.0181	.820	68	.0462
.081	45	.1583	.297	30	.0148	.603	15	.0247	.820	75	.0346
.081	90	.0874	.297	60	.0181	.603	30	.0181	.820	81	.0660
.081	135	.0643	.297	L	.0181	.603	50	.0181	.820	88	-.0181
.081	180	.0330	.297	90	.0445	.603	L	.0280	.820	93	-.0280
.131	180	.0148	.297	U	-.0033	.603	U	-.0445	.820	103	-.0280
.153	170	.0544	.297	135	-.0132	.603	135	-.0247	.820	117	-.0231
.170	00	.1055	.316	180	-.0280	.688	00	.0247	.820	142	-.0132
.170	30	.0956	.348	20	.0148	.688	180	-.0181	.820	165	-.0016
.170	60	.0692	.348	40	.0148	.705	15	.0247	.896	30	.0610
.170	90	.0330	.348	60	.0181	.705	30	.0247	.896	50	.0561
.170	135	.0066	.348	L	.0181	.705	50	.0181	.896	L	.0462
.170	166	.0643	.348	90	.0280	.705	L	.0231	.896	U	-.0132
.170	C	.1171	.348	U	-.0346	.705	U	.0989	.896	130	-.0132
.187	150	.0594	.348	135	-.0346	.705	135	-.0132	.896	150	-.0132
.187	C	.1006	.365	00	.0148	.752	00	.0330	.984	00	-.0346
.194	180	-.0033	.365	180	-.0033	.752	180	-.0132	.984	30	-.0082
.204	C	.1006	.484	00	.0247	.769	15	.0247	.984	60	-.0231
.214	00	.0775	.484	180	-.0181	.769	30	.0330	.984	90	-.0280
.214	180	-.0297	.501	15	.0247	.769	50	.0346	.984	135	-.0280
.223	22	.0692	.501	30	.0247	.769	L	.0511	.984	180	-.0346
.223	45	.0445	.501	50	.0181	.769	90	-.0016			
.223	67	.0330	.501	L	.0132	.769	U	-.0396			
.223	90	.0132	.501	90	-.0297	.769	135	-.0181			

$\alpha = 10^\circ$ ;  $\beta = 0^\circ$ ;  $\delta_V = 0^\circ$ ;  $\delta_S = 0^\circ$

.022	00	.3479	.223	135	-.0082	.501	U	-.0610	.820	15	.1138
.022	90	.1138	.223	C	-.0396	.501	135	-.0561	.820	38	.1039
.022	180	.0330	.260	180	-.0346	.586	00	.0692	.820	58	.0989
.081	00	.3017	.280	00	.0874	.586	180	-.0297	.820	68	.0989
.081	45	.2209	.297	30	.0594	.603	15	.0692	.820	75	.0874
.081	90	.0874	.297	60	.0330	.603	30	-.0561	.820	81	.1401
.081	135	.0330	.297	L	.0857	.603	50	.0544	.820	88	.0033
.081	180	.0148	.297	90	.0379	.603	L	.0643	.820	93	-.0445
.131	180	.0066	.297	U	-.0297	.603	U	-.0561	.820	103	.0495
.153	170	.0181	.297	135	-.0346	.603	135	-.0610	.820	117	.0396
.170	00	.1946	.316	180	-.0346	.688	00	.0692	.820	142	-.0445
.170	30	.1682	.348	20	.0594	.688	180	-.0247	.820	165	-.0231
.170	60	.1039	.348	40	.0412	.705	15	.0692	.896	30	.1204
.170	90	.0280	.348	60	.0594	.705	30	.0594	.896	50	.1204
.170	135	-.0181	.348	L	.0594	.705	50	.0643	.896	L	.1039
.170	166	.0181	.348	90	.0132	.705	L	.0758	.896	U	-.0231
.170	C	.0495	.348	U	-.0495	.705	U	.2737	.896	130	-.0346
.187	150	.0181	.348	135	-.0445	.705	135	-.0346	.896	150	-.0346
.187	C	.0594	.365	00	.0594	.752	00	.0692	.984	00	-.0231
.194	180	-.0033	.365	180	-.0247	.752	180	-.0231	.984	30	-.0082
.204	C	.0857	.484	00	.0874	.769	15	.0692	.984	60	-.0082
.214	00	.1500	.484	180	-.0247	.769	30	.0775	.984	90	-.0346
.214	180	-.0181	.501	15	.0692	.769	50	.0824	.984	135	-.0396
.223	22	.1401	.501	30	.0692	.769	L	.1088	.984	180	-.0396
.223	45	.0808	.501	50	.0544	.769	90	.0082			
.223	67	.0511	.501	L	.0544	.769	U	-.0280			
.223	90	.0016	.501	90	-.0346	.769	135	-.0396			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c)  $M = 4.65$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.4930	.223	135	-.0181	.501	U	-.0561	.820	15	.2045
.022	90	.1237	.223	C	-.0346	.501	135	-.0561	.820	38	.1946
.022	180	.0148	.260	180	-.0396	.586	00	.1418	.820	58	.1830
.081	00	.0223	.280	00	.1583	.586	180	-.0346	.820	68	.1830
.081	45	.2754	.297	30	.1138	.603	15	.1418	.820	75	.1566
.081	90	.0775	.297	60	.0544	.603	30	.1171	.820	81	.2259
.081	135	.0181	.297	L	.0544	.603	50	.1220	.820	88	.0198
.081	180	-.0115	.297	90	.0544	.603	L	.1270	.820	93	-.0396
.131	180	-.0115	.297	U	-.0396	.603	U	-.0495	.820	103	-.0495
.153	170	-.0181	.297	135	-.0396	.603	135	-.0561	.820	117	-.0445
.170	00	.3116	.316	180	-.0396	.688	00	.1418	.820	142	-.0445
.170	30	.2589	.348	20	.1138	.688	180	-.0396	.820	165	-.0396
.170	60	.1319	.348	40	.0775	.705	15	.1418	.896	30	.2160
.170	90	.0280	.348	60	.0956	.705	30	.1237	.896	50	.2259
.170	135	-.0247	.348	L	.1072	.705	50	.1385	.896	L	.2045
.170	166	-.0132	.348	90	.1270	.705	L	.1533	.896	U	-.0280
.170	C	.0544	.348	U	-.0561	.705	U	.2638	.896	130	-.0396
.187	150	-.0132	.348	135	-.0495	.705	135	-.0346	.896	150	-.0346
.187	C	.0445	.365	00	.1319	.752	00	.1418	.984	00	-.0016
.194	180	-.0247	.365	180	-.0247	.752	180	-.0396	.984	30	.0610
.204	C	.0181	.484	00	.1319	.769	15	.1418	.984	60	.0297
.214	00	.2589	.484	180	-.0346	.769	30	.1418	.984	90	-.0346
.214	180	-.0396	.501	15	.1237	.769	50	.1517	.984	135	-.0396
.223	22	.2127	.501	30	.1237	.769	L	.1995	.984	180	-.0396
.223	45	.1385	.501	50	.1171	.769	90	.0247			
.223	67	.0692	.501	L	.1121	.769	U	-.0445			
.223	90	.0066	.501	90	-.0346	.769	135	-.0396			
$\alpha = 28^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.5820	.223	135	-.0445	.501	U	-.0610	.820	15	.6084
.022	90	.0511	.223	C	-.0610	.501	135	-.0660	.820	38	.6183
.022	180	-.0033	.260	180	-.0610	.586	00	.4386	.820	58	.5771
.081	00	.6727	.280	00	.4749	.586	180	-.0445	.820	68	.5655
.081	45	.3924	.297	30	.3298	.603	15	.4204	.820	75	.4864
.081	90	.0874	.297	60	.1171	.603	30	-.0396	.820	81	.6612
.081	135	.0016	.297	L	.2424	.603	50	.3792	.820	88	.0725
.081	180	-.0214	.297	90	.0396	.603	L	.3842	.820	93	-.0231
.131	180	-.0297	.297	U	-.0561	.603	U	-.0561	.820	103	-.0561
.153	170	-.0445	.297	135	-.0561	.603	135	-.0660	.820	117	-.0495
.170	00	.6546	.316	180	-.0396	.688	00	.4650	.820	142	-.0495
.170	30	.5012	.348	20	.3660	.688	180	-.0660	.820	165	-.0280
.170	60	.2226	.348	40	.2407	.705	15	.4468	.896	30	.5969
.170	90	.0231	.348	60	.2902	.705	30	.4204	.896	50	.6249
.170	135	-.0445	.348	L	.3215	.705	50	.4732	.896	L	.7189
.170	166	-.0445	.348	90	.0280	.705	L	.5309	.896	U	-.0016
.170	C	-.0346	.348	U	-.0610	.705	U	.2786	.896	130	-.0445
.187	150	-.0445	.348	135	-.0610	.705	135	-.0346	.896	150	-.0396
.187	C	-.0445	.365	00	.4106	.752	00	.4650	.984	00	.1204
.194	180	-.0396	.365	180	-.0495	.752	180	-.0445	.984	30	.2786
.204	C	.0396	.484	00	.4106	.769	15	.4567	.984	60	.1896
.214	00	.5820	.484	180	-.0561	.769	30	.4749	.984	90	-.0280
.214	180	-.0495	.501	15	.4023	.769	50	.5227	.984	135	-.0396
.223	22	.4913	.501	30	.3298	.769	90	.6084	.984	180	-.0396
.223	45	.2951	.501	50	.3528	.769	L	.1352			
.223	67	.1319	.501	L	.3314	.769	U	.0033			
.223	90	.0132	.501	90	-.0297	.769	135	-.0280			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.1237	.223	135	.1533	.501	U	.0330	.820	15	.0511
.022	90	.3034	.223	C	.0181	.501	135	.0066	.820	38	.0066
.022	180	.0946	.260	180	-.0346	.586	00	-.0297	.820	58	.0297
.081	00	.0874	.280	00	-.0115	.586	180	-.0396	.820	68	.0297
.081	45	.1946	.297	30	.0148	.603	15	-.0115	.820	75	.0346
.081	90	.2589	.297	60	.0643	.603	30	.0066	.820	81	.0824
.081	135	.1962	.297	L	.1072	.603	50	.0280	.820	88	.0511
.081	180	.0692	.297	90	.1797	.603	L	.0445	.820	93	.0346
.131	180	.0429	.297	U	.1286	.603	U	.0445	.820	103	.0132
.153	170	.1797	.297	135	.0643	.603	135	.0181	.820	117	.0082
.170	00	.0330	.316	180	-.0445	.688	00	-.0297	.820	142	.0033
.170	30	.0874	.348	20	.0066	.688	180	-.0346	.820	165	.0297
.170	60	.1418	.348	40	.0148	.705	15	-.0115	.896	30	.0775
.170	90	.1649	.348	60	.0445	.705	30	.0066	.896	50	.0676
.170	135	.1121	.348	L	.0445	.705	50	.0330	.896	L	.0198
.170	166	.1962	.348	90	.1220	.705	L	.0280	.896	U	.0297
.170	C	.4584	.348	U	.0544	.705	U	.3479	.896	130	.0676
.187	150	.1962	.348	135	.0330	.705	135	.0198	.896	150	.0610
.187	C	.4320	.365	00	-.0214	.752	00	-.0396	.984	00	-.0445
.194	180	-.0033	.365	180	-.0396	.752	180	-.0181	.984	30	-.0082
.204	C	.4320	.484	00	-.0297	.769	15	-.0214	.984	60	-.0231
.214	00	.0330	.484	180	-.0495	.769	30	-.0115	.984	90	-.0231
.214	180	-.0297	.501	15	-.0214	.769	50	.0247	.984	135	.0247
.223	22	.0429	.501	30	.0066	.769	90	.0396	.984	180	-.0396
.223	45	.0758	.501	L	.0231	.769	U	.0297			
.223	67	.1055	.501	L	.0280	.769	U	.0198			
.223	90	.1171	.501	90	.0544	.769	135	.0082			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c)  $M = 4.65$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$											
.022	00	.4633	.223	135	.0132	.501	U	-.0495	.820	15	.3825
.022	90	.2754	.223	C	-.0181	.501	135	-.0445	.820	38	.2754
.022	180	.0231	.260	180	-.0495	.586	00	.1220	.820	58	.2902
.081	00	.4007	.280	00	.1583	.586	180	-.0396	.820	68	.2737
.081	45	.4732	.297	30	.1946	.603	15	.1583	.820	75	.2473
.081	90	.2490	.297	60	.1962	.603	30	.1847	.820	81	.3479
.081	135	.0544	.297	L	.2737	.603	50	.2012	.820	88	.0462
.081	180	-.0214	.297	90	.1797	.603	L	.2638	.820	93	-.0346
.131	180	-.0297	.297	U	.0066	.603	U	-.0495	.820	103	-.0495
.153	170	-.0181	.297	135	-.0346	.603	135	-.0445	.820	117	-.0396
.170	00	.2935	.316	180	-.0396	.688	00	.1220	.820	142	-.0445
.170	30	.3644	.348	20	.1682	.688	180	-.0495	.820	165	-.0280
.170	60	.3116	.348	40	.1764	.705	15	.1583	.896	30	.3858
.170	90	.1583	.348	60	.2160	.705	30	.2127	.896	50	.4270
.170	135	.0016	.348	L	.2209	.705	50	.2473	.896	L	.2788
.170	166	.0016	.348	90	.2424	.705	L	.2589	.896	U	-.0231
.170	C	.1583	.348	U	-.0346	.705	U	.1896	.896	130	-.0280
.187	150	.0181	.348	135	-.0346	.705	135	-.0346	.896	150	-.0016
.187	C	.1434	.365	00	.1220	.752	00	.1220	.984	00	.0033
.194	180	-.0396	.365	180	-.0445	.752	180	-.0396	.984	30	.1517
.204	C	.1171	.484	00	.1319	.769	15	.1847	.984	60	.0775
.214	00	.2391	.484	180	-.0396	.769	30	.2308	.984	90	-.0280
.214	180	-.0495	.501	15	.1764	.769	50	.2572	.984	135	-.0231
.223	22	.2754	.501	30	.1946	.769	L	.3265	.984	180	-.0396
.223	45	.2638	.501	50	.1962	.769	90	.0346			
.223	67	.2127	.501	L	.2012	.769	U	-.0346			
.223	90	.1121	.501	90	.0495	.769	135	-.0280			

$\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.022	00	.5985	.223	135	-.0247	.501	U	-.0561	.820	15	1.1377
.022	90	.1682	.223	C	-.0445	.501	135	-.0610	.820	38	.8409
.022	180	-.0214	.260	180	-.0495	.586	00	.4287	.820	58	.6331
.081	00	.5974	.280	00	.4551	.586	180	-.0445	.820	68	.6232
.081	45	.6068	.297	30	.4732	.603	15	.5095	.820	75	.5705
.081	90	.1764	.297	60	.3100	.603	30	.4204	.820	81	.8244
.081	135	.0132	.297	L	.4666	.603	50	.4930	.820	88	.1039
.081	180	-.0033	.297	90	.1896	.603	L	.5985	.820	93	-.0082
.131	180	-.0396	.297	U	-.0132	.603	U	-.0445	.820	103	-.0445
.153	170	-.0396	.297	135	-.0445	.603	135	-.0610	.820	117	-.0346
.170	00	.6249	.316	180	-.0396	.688	00	.4452	.820	142	-.0280
.170	30	.6876	.348	20	.4452	.688	180	-.0610	.820	165	-.0082
.170	60	.4369	.348	40	.3924	.705	15	.5095	.896	30	.9299
.170	90	.1434	.348	60	.4996	.705	30	.5903	.896	50	.9415
.170	135	-.0396	.348	L	.5045	.705	50	.6249	.896	L	.9250
.170	166	-.0346	.348	90	.1583	.705	L	.6925	.896	U	.0247
.170	C	-.0297	.348	U	-.0495	.705	U	.4485	.896	130	-.0346
.187	150	-.0297	.348	135	-.0495	.705	135	-.0231	.896	150	-.0346
.187	C	-.0247	.365	00	.4106	.752	00	.4452	.984	00	.0775
.194	180	-.0495	.365	180	-.0561	.752	180	-.0396	.984	30	.3314
.204	C	-.0247	.484	00	.4452	.769	15	.5721	.984	60	.1880
.214	00	.5804	.484	180	-.0561	.769	30	.6876	.984	90	-.0181
.214	180	-.0561	.501	15	.5095	.769	50	.7139	.984	135	-.0280
.223	22	.6167	.501	30	.5260	.769	L	.7238	.984	180	-.0346
.223	45	.4930	.501	50	.4996	.769	90	.1467			
.223	67	.3017	.501	L	.4782	.769	U	.0082			
.223	90	.1220	.501	90	.0280	.769	135	-.0231			

$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.752	00	-.0396	.820	15	-.0396	.820	117	-.0346	.984	00	-.0396
.752	180	-.0346	.820	38	-.0297	.820	142	-.0346	.984	30	-.0346
.769	15	-.0297	.820	58	-.0346	.820	165	-.0396	.984	60	-.0495
.769	30	-.0297	.820	68	-.0231	.896	30	-.0181	.984	90	-.0396
.769	50	-.0280	.820	75	-.0396	.896	50	-.0346	.984	135	-.0445
.769	L	-.0396	.820	81	.0132	.896	L	-.0346	.984	180	-.0346
.769	90	.0082	.820	88	.0033	.896	U	-.0280			
.769	U	-.0280	.820	93	-.0082	.896	130	-.0346			
.769	135	-.0280	.820	103	-.0280	.896	150	-.0231			

$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.752	00	.1237	.820	15	.0148	.820	117	-.0396	.984	00	-.0132
.752	180	-.0495	.820	38	.0692	.820	142	-.0495	.984	30	-.0082
.769	15	.0791	.820	58	.0610	.820	165	-.0445	.984	60	-.0231
.769	30	.0247	.820	68	.0940	.896	30	.0676	.984	90	-.0280
.769	50	.0676	.820	75	.1039	.896	50	.0561	.984	135	-.0445
.769	L	.1039	.820	81	.0824	.896	L	.0775	.984	180	-.0346
.769	90	.0132	.820	88	-.0231	.896	U	-.0280			
.769	U	-.0445	.820	93	-.0280	.896	130	-.0445			
.769	135	-.0396	.820	103	-.0396	.896	150	-.0396			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c)  $M = 4.65$  - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 28^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.4287	.820	15	.2226	.820	117	-.0396	.984	00	.0824
.752	180	-.0561	.820	38	.3116	.820	142	-.0495	.984	30	.0198
.769	15	.3298	.820	58	.2902	.820	165	-.0346	.984	60	.0725
.769	30	.2045	.820	68	.4501	.896	30	.3594	.984	90	-.0346
.769	50	.3067	.820	75	.4122	.896	50	.2688	.984	135	-.0445
.769	L	.4501	.820	81	.3693	.896	L	.3545	.984	180	-.0396
.769	90	.0940	.820	88	.0198	.896	U	-.0181			
.769	U	-.0445	.820	93	-.0346	.896	130	-.0495			
.769	135	-.0396	.820	103	-.0495	.896	150	-.0396			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0033	.820	15	.0148	.820	117	-.0132	.984	00	-.0445
.752	180	-.0066	.820	38	.0066	.820	142	-.0066	.984	30	-.0445
.769	15	-.0033	.820	58	-.0016	.820	165	.0132	.984	60	-.0231
.769	30	-.0115	.820	68	.0033	.896	30	.0412	.984	90	-.0016
.769	50	-.0066	.820	75	-.0066	.896	50	.0412	.984	135	-.0561
.769	L	.0033	.820	81	-.0016	.896	L	-.0016	.984	180	-.0445
.769	90	-.0066	.820	88	-.0066	.896	U	-.0016			
.769	U	.0132	.820	93	-.0066	.896	130	-.0066			
.769	135	-.0132	.820	103	-.0231	.896	150	.0033			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.1319	.820	15	.1962	.820	117	-.0445	.984	00	-.0016
.752	180	-.0396	.820	38	.1962	.820	142	-.0445	.984	30	-.0082
.769	15	.1319	.820	58	.1847	.820	165	-.0396	.984	60	.0297
.769	30	.1319	.820	68	.1847	.896	30	.2110	.984	90	-.0181
.769	50	.1517	.820	75	.1566	.896	50	.2209	.984	135	-.0396
.769	L	.1995	.820	81	.2374	.896	L	.2045	.984	180	-.0346
.769	90	.0247	.820	88	.0198	.896	U	-.0231			
.769	U	-.0396	.820	93	-.0396	.896	130	-.0346			
.769	135	-.0445	.820	103	-.0495	.896	150	-.0280			
$\alpha = 28^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.4666	.820	15	.6018	.820	117	-.0396	.984	00	.1369
.752	180	-.0445	.820	38	.6117	.820	142	-.0396	.984	30	.0396
.769	15	.4584	.820	58	.5672	.820	165	-.0231	.984	60	.1204
.769	30	.4666	.820	68	.5556	.896	30	.6035	.984	90	-.0280
.769	50	.5128	.820	75	.4815	.896	50	.6678	.984	135	-.0495
.769	L	.6084	.820	81	.6777	.896	L	.7205	.984	180	-.0396
.769	90	.1369	.820	88	.0676	.896	U	.0033			
.769	U	.0132	.820	93	-.0231	.896	130	-.0445			
.769	135	-.0280	.820	103	-.0495	.896	150	-.0396			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	-.0297	.820	15	.0429	.820	117	.0198	.984	00	-.0346
.752	180	-.0132	.820	38	.0148	.820	142	.0082	.984	30	-.0231
.769	15	-.0214	.820	58	.0346	.820	165	.0346	.984	60	.0247
.769	30	.0066	.820	68	.0346	.896	30	.0824	.984	90	.1204
.769	50	.0346	.820	75	.0462	.896	50	.0725	.984	135	-.0132
.769	L	.0511	.820	81	.0940	.896	L	.0198	.984	180	-.0280
.769	90	.0396	.820	88	.0610	.896	U	.0346			
.769	U	.0247	.820	93	.0462	.896	130	.0560			
.769	135	.0198	.820	103	.0247	.896	150	.0660			
$\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.1237	.820	15	.3759	.820	117	-.0396	.984	00	-.0132
.752	180	-.0495	.820	38	.2688	.820	142	-.0396	.984	30	-.0231
.769	15	.1781	.820	58	.2852	.820	165	-.0231	.984	60	.0890
.769	30	.2226	.820	68	.2688	.896	30	.3858	.984	90	.0082
.769	50	.2589	.820	75	.2424	.896	50	.4237	.984	135	-.0346
.769	L	.3215	.820	81	.3545	.896	L	.2803	.984	180	-.0346
.769	90	.0346	.820	88	.0462	.896	U	-.0181			
.769	U	-.0132	.820	93	-.0280	.896	130	-.0016			
.769	135	-.0346	.820	103	-.0445	.896	150	.0462			
$\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$											
.752	00	.4303	.820	15	1.1344	.820	117	-.0445	.984	00	.0725
.752	180	-.0445	.820	38	.8376	.820	142	-.0346	.984	30	.0297
.769	15	.5655	.820	58	.6298	.820	165	-.0082	.984	60	.1517
.769	30	.6843	.820	68	.6298	.896	30	.9332	.984	90	-.0280
.769	50	.7535	.820	75	.5672	.896	50	.9332	.984	135	-.0495
.769	L	.7205	.820	81	.8425	.896	L	.9184	.984	180	-.0396
.769	90	.1467	.820	88	.0989	.896	U	.0132			
.769	U	-.0396	.820	93	-.0132	.896	130	-.0396			
.769	135	-.0280	.820	103	-.0495	.896	150	-.0346			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c) M = 4.65 - Continued

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0660	.820	15	-.0577	.820	117	-.0396	.984	00	-.0445
.752	180	-.0297	.820	38	-.0577	.820	142	-.0297	.984	30	-.0445
.769	15	-.0577	.820	58	-.0346	.820	165	-.0346	.984	60	-.0495
.769	30	-.0577	.820	68	-.0396	.896	30	-.0346	.984	90	-.0495
.769	50	-.0297	.820	75	-.0396	.896	50	-.0346	.984	135	-.0445
.769	L	-.0396	.820	81	.0132	.896	L	-.0396	.984	180	-.0495
.769	90	-.0132	.820	88	.0082	.896	U	-.0346			
.769	U	-.0297	.820	93	-.0082	.896	130	-.0346			
.769	135	-.0297	.820	103	-.0297	.896	150	-.0346			
$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.1138	.820	15	.0231	.820	117	-.0495	.984	00	-.0033
.752	180	-.0561	.820	38	.0594	.820	142	-.0561	.984	30	-.0033
.769	15	.0692	.820	58	.0610	.820	165	-.0561	.984	60	-.0297
.769	30	.0231				.896	30	-.0082	.984	90	-.0495
.769	50	.0610	.820	75	.1088	.896	50	.0561	.984	135	-.0561
.769	L	.1039	.820	81	.0824	.896	L	.0824	.984	180	-.0561
.769	90	-.0082	.820	88	-.0297	.896	U	-.0396			
.769	U	-.0495	.820	93	-.0346	.896	130	-.0495			
.769	135	-.0561	.820	103	-.0445	.896	150	-.0561			
$\alpha = 28^\circ; \beta = -10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.4303	.820	15	.2143	.820	117	-.0495	.984	00	.0610
.752	180	-.0610	.820	38	.2951	.820	142	-.0610	.984	30	.0940
.769	15	.3133	.820	58	.2852	.820	165	-.0610	.984	60	.0824
.769	30	.1962	.820	68	.4435	.896	30	.1303	.984	90	-.0396
.769	50	.3001	.820	75	.4073	.896	50	.2045	.984	135	-.0561
.769	L	.4485	.820	81	.3644	.896	L	.3644	.984	180	-.0561
.769	90	.0874	.820	88	.0082	.896	U	-.0445			
.769	U	-.0561	.820	93	-.0561	.896	130	-.0610			
.769	135	-.0610	.820	103	-.0561	.896	150	-.0561			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0033	.820	15	.0231	.820	117	-.0082	.984	00	-.0445
.752	180	-.0033	.820	38	.0148	.820	142	.0033	.984	30	-.0346
.769	15	-.0033	.820	58	.0082	.820	165	.0181	.984	60	-.0396
.769	30	-.0033	.820	68	.0082	.896	30	.0297	.984	90	-.0396
.769	50	.0033	.820	75	-.0033	.896	50	.0181	.984	135	-.0297
.769	L	.0132	.820	81	.0082	.896	L	.0033	.984	180	-.0495
.769	90	-.0181	.820	88	.0033	.896	U	.0033			
.769	U	-.0082	.820	93	-.0033	.896	130	.0033			
.769	135	-.0033	.820	103	-.0132	.896	150	.0082			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.1319	.820	15	.1946	.820	117	-.0561	.984	00	.0033
.752	180	-.0445	.820	38	.1863	.820	142	-.0495	.984	30	.0561
.769	15	.1319	.820	58	.1764	.820	165	-.0495	.984	60	.0181
.769	30	.1319	.820	68	.1830	.896	30	.1764	.984	90	-.0445
.769	50	.1665	.820	75	.1566	.896	50	.2308	.984	135	-.0445
.769	L	.1979	.820	81	.2308	.896	L	.2045	.984	180	-.0561
.769	90	.0082	.820	88	.0132	.896	U	-.0445			
.769	U	-.0495	.820	93	-.0561	.896	130	-.0445			
.769	135	-.0561	.820	103	-.0561	.896	150	-.0445			
$\alpha = 28^\circ; \beta = 0^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	.4633	.820	15	.5886	.820	117	-.0495	.984	00	.1039
.752	180	-.0561	.820	38	.6068	.820	142	-.0495	.984	30	.2770
.769	15	.4452	.820	58	.5688	.820	165	-.0495	.984	60	.1880
.769	30	.4633	.820	68	.5639	.896	30	.4040	.984	90	-.0396
.769	50	.5474	.820	75	.4782	.896	50	.5688	.984	135	-.0445
.769	L	.6051	.820	81	.6579	.896	L	.7535	.984	180	-.0445
.769	90	.1352	.820	88	.0610	.896	U	-.0231			
.769	U	-.0495	.820	93	-.0495	.896	130	-.0561			
.769	135	-.0561	.820	103	-.0561	.896	150	-.0495			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$											
.752	00	-.0396	.820	15	.0429	.820	117	.0148	.984	00	-.0396
.752	180	-.0280	.820	38	.0148	.820	142	.0033	.984	30	-.0132
.769	15	-.0214	.820	58	.0346	.820	165	.0297	.984	60	-.0231
.769	30	-.0033	.820	68	.0297	.896	30	.0775	.984	90	-.0181
.769	50	.0346	.820	75	.0412	.896	50	.0725	.984	135	.0198
.769	L	.0511	.820	81	.0890	.896	L	.0148	.984	180	-.0445
.769	90	.0247	.820	88	.0561	.896	U	.0297			
.769	U	.0198	.820	93	.0412	.896	130	.0725			
.769	135	.0148	.820	103	.0198	.896	150	.0627			



TABLE II. - PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Continued

(c) M = 4.65 - Continued

$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$	$\frac{x}{l}$	$\phi$ , deg (a)	$C_p$
$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$											
.752	00	.1220	.820	15	.3924	.820	117	-.0445	.984	00	-.0016
.752	180	-.0561	.820	38	.2671	.820	142	-.0445	.984	30	.1253
.769	15	.1764	.820	58	.2869	.820	165	-.0396	.984	60	.0627
.769	30	.2209	.820	68	.2754	.896	30	.3776	.984	90	-.0396
.769	50	.2754	.820	75	.2440	.896	50	.4353	.984	135	-.0396
.769	L	.3232	.820	81	.3561	.896	L	.2869	.984	180	-.0495
.769	90	.0198	.820	88	.0462	.896	U	-.0396			
.769	U	-.0445	.820	93	-.0495	.896	130	-.0280			
.769	135	-.0445	.820	103	-.0445	.896	150	-.0066			
$\alpha = 28^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$											
.752	00	.4237	.820	15	1.1294	.820	117	-.0561	.984	00	.0841
.752	180	-.0610	.820	38	.8310	.820	142	-.0561	.984	30	.3083
.769	15	.5589	.820	58	.6331	.820	165	-.0495	.984	60	.1467
.769	30	.6760	.820	68	.6216	.896	30	.7980	.984	90	-.0396
.769	50	.7552	.820	75	.5688	.896	50	.8673	.984	135	-.0396
.769	L	.7238	.820	81	.8244	.896	L	.8937	.984	180	-.0495
.769	90	.1369	.820	88	.0890	.896	U	-.0231			
.769	U	-.0445	.820	93	-.0561	.896	130	-.0561			
.769	135	-.0561	.820	103	-.0610	.896	150	-.0495			
$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	-.0379	.820	15	-.0379	.820	117	-.0396	.984	00	-.0445
.752	180	-.0330	.820	38	-.0297	.820	142	-.0330	.984	30	-.0396
.769	15	-.0115	.820	58	-.0330	.820	165	-.0396	.984	60	-.0495
.769	30	-.0198	.820	68	-.0396	.896	30	-.0330	.984	90	-.0495
.769	50	-.0280	.820	75	-.0396	.896	50	-.0330	.984	135	-.0445
.769	L	-.0396	.820	81	.0099	.896	L	-.0445	.984	180	-.0445
.769	90	-.0165	.820	88	.0049	.896	U	-.0396			
.769	U	-.0280	.820	93	-.0115	.896	130	-.0396			
.769	135	-.0330	.820	103	-.0280	.896	150	-.0330			
$\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.1187	.820	15	.0264	.820	117	-.0495	.984	00	-.0115
.752	180	-.0544	.820	38	.0544	.820	142	-.0544	.984	30	.0049
.769	15	.0725	.820	58	.0643	.820	165	-.0544	.984	60	-.0066
.769	30	.0264	.820	68	.0907	.896	30	.0692	.984	90	-.0495
.769	50	.0643	.820	75	.1072	.896	50	.0692	.984	135	-.0544
.769	L	.1022	.820	81	.0857	.896	L	.0808	.984	180	-.0495
.769	90	-.0066	.820	88	-.0330	.896	U	-.0396			
.769	U	-.0495	.820	93	-.0396	.896	130	-.0495			
.769	135	-.0544	.820	103	-.0445	.896	150	-.0544			
$\alpha = 28^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.4303	.820	15	.2193	.820	117	-.0495	.984	00	.0758
.752	180	-.0610	.820	38	.3100	.820	142	-.0544	.984	30	.0973
.769	15	.3298	.820	58	.2984	.820	165	-.0544	.984	60	.0808
.769	30	.2012	.820	68	.4551	.896	30	.2918	.984	90	-.0396
.769	50	.3083	.820	75	.4171	.896	50	.3199	.984	135	-.0495
.769	L	.4551	.820	81	.3957	.896	L	.3462	.984	180	-.0495
.769	90	.0907	.820	88	.0148	.896	U	-.0396			
.769	U	-.0544	.820	93	-.0544	.896	130	-.0544			
.769	135	-.0610	.820	103	-.0544	.896	150	-.0495			
$\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	-.0016	.820	15	.0264	.820	117	-.0066	.984	00	-.0445
.752	180	.0049	.820	38	.0165	.820	142	.0099	.984	30	-.0165
.769	15	-.0016	.820	58	.0148	.820	165	.0264	.984	60	-.0280
.769	30	-.0016	.820	68	.0148	.896	30	.0363	.984	90	-.0280
.769	50	.0099	.820	75	.0049	.896	50	.0264	.984	135	-.0231
.769	L	.0214	.820	81	.0099	.896	L	.0099	.984	180	-.0445
.769	90	-.0115	.820	88	.0099	.896	U	.0099			
.769	U	-.0016	.820	93	.0049	.896	130	.0049			
.769	135	-.0016	.820	103	-.0066	.896	150	.0148			
$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.1369	.820	15	.2012	.820	117	-.0544	.984	00	.0000
.752	180	-.0445	.820	38	.1913	.820	142	-.0495	.984	30	.0643
.769	15	.1451	.820	58	.1896	.820	165	-.0495	.984	60	.0829
.769	30	.1369	.820	68	.1896	.896	30	.2605	.984	90	-.0330
.769	50	.1781	.820	75	.1682	.896	50	.2374	.984	135	-.0445
.769	L	.2061	.820	81	.2374	.896	L	.2160	.984	180	-.0495
.769	90	.0099	.820	88	.0214	.896	U	-.0445			
.769	U	-.0544	.820	93	-.0544	.896	130	-.0396			
.769	135	-.0544	.820	103	-.0544	.896	150	-.0280			



TABLE II.- PRESSURE COEFFICIENTS MEASURED ON FUSELAGE - Concluded

(c) M = 4.65 - Concluded

$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$	$\frac{x}{l}$	$\beta$ , deg (a)	$C_p$
$\alpha = 28^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.4782	.820	15	.6068	.820	117	-.0495	.984	00	.1138
.752	180	-.0544	.820	38	.6249	.820	142	-.0495	.984	30	.2754
.769	15	.4584	.820	58	.5853	.820	165	-.0445	.984	60	.1946
.769	30	.4782	.820	68	.5787	.896	30	.6991	.984	90	-.0330
.769	50	.5688	.820	75	.4979	.896	50	.7420	.984	135	-.0330
.769	L	.6232	.820	81	.6925	.896	L	.7370	.984	180	-.0445
.769	90	.1401	.820	88	.0692	.896	U	-.0231			
.769	U	-.0445	.820	93	-.0495	.896	130	-.0495			
.769	135	-.0544	.820	103	-.0495	.896	150	-.0396			
$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	-.0297	.820	15	.0544	.820	117	.0214	.984	00	-.0396
.752	180	-.0280	.820	38	.0165	.820	142	.0099	.984	30	.0264
.769	15	-.0099	.820	58	.0379	.820	165	.0379	.984	60	-.0066
.769	30	.0165	.820	68	.0313	.896	30	.0907	.984	90	-.0066
.769	50	.0379	.820	75	.0478	.896	50	.0758	.984	135	.0313
.769	L	.0478	.820	81	.0973	.896	L	.0214	.984	180	-.0445
.769	90	.0313	.820	88	.0594	.896	U	.0379			
.769	U	.0264	.820	93	.0478	.896	130	.0692			
.769	135	.0214	.820	103	.0264	.896	150	.0808			
$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.1187	.820	15	.3941	.820	117	-.0445	.984	00	.0000
.752	180	-.0544	.820	38	.2935	.820	142	-.0445	.984	30	.1731
.769	15	.1830	.820	58	.2869	.820	165	-.0396	.984	60	.0808
.769	30	.2193	.820	68	.2704	.896	30	.4435	.984	90	-.0280
.769	50	.2919	.820	75	.2490	.896	50	.4501	.984	135	-.0165
.769	L	.3364	.820	81	.3578	.896	L	.2918	.984	180	-.0544
.769	90	.0214	.820	88	.0429	.896	U	-.0396			
.769	U	-.0445	.820	93	-.0495	.896	130	-.0330			
.769	135	-.0495	.820	103	-.0495	.896	150	.0049			
$\alpha = 28^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$											
.752	00	.4320	.820	15	1.1492	.820	117	-.0495	.984	00	.0692
.752	180	-.0544	.820	38	.8739	.820	142	-.0495	.984	30	.3792
.769	15	.5688	.820	58	.6496	.820	165	-.0445	.984	60	.2160
.769	30	.6892	.820	68	.6496	.896	30	1.0618	.984	90	-.0165
.769	50	.7634	.820	75	.5837	.896	50	1.0783	.984	135	-.0115
.769	L	.7354	.820	81	.8277	.896	L	1.0289	.984	180	-.0445
.769	90	.1566	.820	88	.0907	.896	U	-.0115			
.769	U	-.0445	.820	93	-.0445	.896	130	-.0396			
.769	135	-.0445	.820	103	-.0495	.896	150	-.0396			



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING

(a)  $M = 2.30$

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 0^\circ; \beta = -10^\circ$

.000	.7280		.7505				.000
.100	.0174	.0408	.0541	.0613			.100
.200	.0031	.0235	.0204	.0235	.0429	.0408	.200
.300	-.0082	.0102	-.0112	.0000			.300
.400	-.0112	.0000	-.0225	-.0174	.0000	.0071	.400
.500	-.0163	-.0174	-.0337	-.0276			.500
.600	-.0357	-.0306	-.0500	-.0408	-.0388	-.0276	.600
.700	-.0470	-.0480	-.0582	-.0511			.700
.800	-.0531	-.0480	-.0582	-.0511	-.0613	-.0541	.800
.900	-.0531	-.0480	-.0562	-.0511			.900

$\alpha = 10^\circ; \beta = -10^\circ$

.000	.4695		.6583				.000
.100	-.1960	.2919	-.1847	.3807			.100
.200	-.1990	.2368	-.1960	.2919	-.1684	.3460	.200
.300	-.1960	.2062	-.2072	.2470			.300
.400	-.1939	.1786	-.2072	.2062	-.1827	.2674	.400
.500	-.1939	.1551	-.1909	.1786			.500
.600	-.2072	.1276	-.1796	.1480	-.1990	.1929	.600
.700	-.2072	.1000	-.1796	.1235			.700
.800	-.2102	.1000	-.1766	.1174	-.2051	.1408	.800
.900	-.2072	.1000	-.1796	.1072			.900

$\alpha = 15^\circ; \beta = -10^\circ$

.000	.2378		.5164				.000
.100	-.2388	.3664	-.2296	.4930			.100
.200	-.2439	.3123	-.2327	.4011	-.2164	.4766	.200
.300	-.2215	.2878	-.2276	.3460			.300
.400	-.2215	.2643	-.2215	.3021	-.2245	.3807	.400
.500	-.2215	.2368	-.2184	.2776			.500
.600	-.2296	.1990	-.2215	.2398	-.2327	.3021	.600
.700	-.2327	.1817	-.2276	.2194			.700
.800	-.2296	.1817	-.2276	.2092	-.2245	.2439	.800
.900	-.2184	.1888	-.2164	.1960			.900

$\alpha = 0^\circ; \beta = -5^\circ$

.000	.8924		.8648				.000
.100	.0174	.0296	.0623	.0735			.100
.200	-.0082	.0123	.0306	.0357	.0337	.0398	.200
.300	-.0163	.0020	.0000	.0123			.300
.400	-.0143	-.0112	-.0163	-.0153	.0031	.0123	.400
.500	-.0255	-.0214	-.0368	-.0255			.500
.600	-.0419	-.0388	-.0531	-.0419	-.0306	-.0214	.600
.700	-.0531	-.0521	-.0613	-.0521			.700
.800	-.0562	-.0551	-.0643	-.0521	-.0531	-.0449	.800
.900	-.0531	-.0521	-.0613	-.0521			.900

$\alpha = 10^\circ; \beta = -5^\circ$

.000	.6402		.8230				.000
.100	-.1909	.3237	-.1511	.4125			.100
.200	-.1797	.2563	-.1736	.3175	-.1348	.3819	.200
.300	-.1879	.2185	-.1848	.2665			.300
.400	-.1828	.1838	-.1960	.2216	-.1603	.2900	.400
.500	-.1766	.1572	-.2052	.1909			.500
.600	-.1797	.1266	-.2103	.1603	-.1797	.2185	.600
.700	-.1828	.0990	-.2022	.1368			.700
.800	-.1848	.0919	-.1909	.1225	-.1879	.1572	.800
.900	-.1879	.0960	-.1848	.1123			.900



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

 $\alpha = 15^\circ; \beta = -5^\circ$ 

.000	.4789		.7392				.000
.100	-.2246	.4268	-.2022	.5595			.100
.200	-.2246	.3614	-.2103	.4533	-.1848	.5524	.200
.300	-.2297	.3278	-.2185	.3890			.300
.400	-.2165	.2971	-.2246	.3410	-.1960	.4329	.400
.500	-.1991	.2665	-.2297	.3104			.500
.600	-.2073	.2287	-.2277	.2767	-.2103	.3441	.600
.700	-.2052	.2011	-.2216	.2491			.700
.800	-.1991	.1940	-.2165	.2359	-.2165	.2767	.800
.900	-.1991	.1981	-.2103	.2216			.900

 $\alpha = 0^\circ; \beta = 0^\circ$ 

.000	.9884		.9823				.000
.100	.0112	.0539	.0478	.0743			.100
.200	-.0224	.0092	.0163	.0468	.0275	.0336	.200
.300	-.0285	-.0041	-.0061	.0193			.300
.400	-.0316	-.0173	-.0204	-.0010	-.0224	-.0041	.400
.500	-.0316	-.0275	-.0366	-.0214			.500
.600	-.0478	-.0377	-.0560	-.0417	-.0448	-.0275	.600
.700	-.0590	-.0550	-.0672	-.0550			.700
.800	-.0621	-.0550	-.0702	-.0580	-.0621	-.0519	.800
.900	-.0590	-.0519	-.0672	-.0580			.900

 $\alpha = 5^\circ; \beta = 0^\circ$ 

.000	.1355		.9019				.000
.100	-.1406	.2038	-.0591	.2242			.100
.200	-.1692	.1315	-.0876	.1794	-.0540	.1692	.200
.300	-.1610	.0999	-.1101	.1376			.300
.400	-.1213	.0724	-.1243	.0999	-.0876	.1274	.400
.500	-.1182	.0550	-.1406	.0754			.500
.600	-.1243	.0306	-.1549	.0520	-.1162	.0856	.600
.700	-.1274	.0061	-.1661	.0346			.700
.800	-.1213	.0031	-.1692	.0275	-.1294	.0448	.800
.900	-.1162	.0061	-.1722	.0204			.900

 $\alpha = 10^\circ; \beta = 0^\circ$ 

.000	.8553		1.0176				.000
.100	-.1960	.3542	-.1123	.4419			.100
.200	-.2102	.2715	-.1398	.3439	-.1010	.4052	.200
.300	-.1909	.2276	-.1572	.2858			.300
.400	-.1766	.1898	-.1684	.2409	-.1317	.3133	.400
.500	-.1766	.1633	-.1796	.2072			.500
.600	-.1847	.1357	-.1939	.1735	-.1541	.2378	.600
.700	-.1827	.1051	-.2021	.1490			.700
.800	-.1715	.1021	-.2051	.1388	-.1572	.1735	.800
.900	-.1653	.1051	-.2051	.1327			.900

 $\alpha = 15^\circ; \beta = 0^\circ$ 

.000	.7356		.9693				.000
.100	-.2071	.4857	-.1684	.6316			.100
.200	-.2020	.4040	-.1826	.5091	-.1541	.6112	.200
.300	-.1990	.3530	-.1939	.4306			.300
.400	-.2020	.3153	-.2020	.3796	-.1735	.4887	.400
.500	-.2071	.2816	-.2102	.3387			.500
.600	-.2020	.2469	-.2183	.3020	-.1877	.3796	.600
.700	-.1939	.2132	-.2245	.2745			.700
.800	-.1877	.2061	-.2214	.2612	-.1908	.3020	.800
.900	-.1908	.2102	-.2102	.2510			.900



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

 $\alpha = 0^\circ; \beta = 5^\circ$ 

.000	1.0843		1.1340				.000
.100	.0091	.0569	.0599	.0802			.100
.200	-.0294	.0030	.0183	.0467			.200
.300	-.0406	-.0173	-.0020	.0203	.0650	.0802	.300
.400	-.0437	-.0345	-.0213	-.0041	.0122	.0264	.400
.500	-.0437	-.0447	-.0406	-.0173			.500
.600	-.0548	-.0538	-.0629	-.0345	-.0294	-.0173	.600
.700	-.0660	-.0680	-.0741	-.0538			.700
.800	-.0660	-.0680	-.0802	-.0609	-.0629	-.0477	.800
.900	-.0660	-.0640	-.0802	-.0680			.900

 $\alpha = 10^\circ; \beta = 5^\circ$ 

.000	1.0517		1.1908				.000
.100	-.1545	.3867	-.0726	.4716			.100
.200	-.1801	.3018	-.1013	.3836	-.0726	.4379	.200
.300	-.1944	.2506	-.1207	.3223			.300
.400	-.2026	.2097	-.1381	.2742	-.1064	.3488	.400
.500	-.2077	.1821	-.1514	.2404			.500
.600	-.2056	.1483	-.1657	.1964	-.1289	.2639	.600
.700	-.1964	.1176	-.1770	.1719			.700
.800	-.1852	.1074	-.1831	.1555	-.1238	.1862	.800
.900	-.1831	.1074	-.1831	.1453			.900

 $\alpha = 15^\circ; \beta = 5^\circ$ 

.000	.9623		1.1742				.000
.100	-.1986	.5518	-.1229	.6941			.100
.200	-.2129	.4453	-.1454	.5651	-.1147	.6777	.200
.300	-.2211	.3849	-.1618	.4832			.300
.400	-.2160	.3399	-.1730	.4218	-.1423	.5375	.400
.500	-.2017	.3061	-.1843	.3778			.500
.600	-.2017	.2682	-.1955	.3337	-.1618	.4187	.600
.700	-.2017	.2283	-.2048	.3030			.700
.800	-.2017	.2211	-.2068	.2887	-.1566	.3133	.800
.900	-.1986	.2314	-.2099	.2723			.900

 $\alpha = 0^\circ; \beta = 10^\circ$ 

.000	1.2579		1.3178				.000
.100	.0721	.0864	.1280	.1270			.100
.200	.0102	.0254	.0833	.0833	.1362	.1372	.200
.300	-.0173	-.0010	.0549	.0528			.300
.400	-.0345	-.0183	.0305	.0295	.0691	.0762	.400
.500	-.0396	-.0315	.0081	.0122			.500
.600	-.0478	-.0417	-.0173	-.0081	.0132	.0193	.600
.700	-.0569	-.0518	-.0345	-.0284			.700
.800	-.0620	-.0559	-.0457	-.0356	-.0122	-.0051	.800
.900	-.0650	-.0518	-.0478	-.0386			.900

 $\alpha = 10^\circ; \beta = 10^\circ$ 

.000	1.2551		1.3885				.000
.100	-.1070	.4401	-.0234	.5185			.100
.200	-.1436	.3423	-.0591	.4401	-.0285	.4880	.200
.300	-.1610	.2842	-.0846	.3688			.300
.400	-.1742	.2435	-.1019	.3178	-.0683	.3932	.400
.500	-.1834	.2160	-.1161	.2802			.500
.600	-.1946	.1824	-.1324	.2394	-.0988	.2944	.600
.700	-.1997	.1477	-.1436	.2088			.700
.800	-.2027	.1375	-.1518	.1956	-.0876	.2160	.800
.900	-.1997	.1416	-.1518	.1824			.900



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(a)  $M = 2.30$  - Concluded

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 15^\circ; \beta = 10^\circ$

.000	1.2002		1.3994				.000
.100	-.1542	.6118	-.0756	.7783			.100
.200	-.1798	.5097	-.1042	.6384	-.0725	.7446	.200
.300	-.1941	.4413	-.1236	.5536			.300
.400	-.2022	.3902	-.1379	.4893	-.1042	.6016	.400
.500	-.2074	.3534	-.1512	.4382			.500
.600	-.2165	.3126	-.1685	.3871	-.1236	.4617	.600
.700	-.2186	.2717	-.1767	.3534			.700
.800	-.2186	.2646	-.1828	.3361	-.1154	.3463	.800
.900	-.2104	.2676	-.1828	.3156			.900



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(b)  $M = 2.88$

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 0^\circ; \beta = -10^\circ$

.000	.5801		.7850				.000
.100	.0287	.0426	.0614	.0624			.100
.200	.0119	.0228	.0317	.0356	.0317	.0356	.200
.300	.0040	.0129	.0119	.0158			.300
.400	-.0010	.0030	-.0010	.0000	.0099	.0158	.400
.500	-.0069	-.0040	-.0119	-.0099			.500
.600	-.0178	-.0168	-.0257	-.0238	-.0148	-.0099	.600
.700	-.0287	-.0297	-.0366	-.0297			.700
.800	-.0337	-.0337	-.0366	-.0337	-.0287	-.0267	.800
.900	-.0366	-.0337	-.0337	-.0337			.900

$\alpha = 10^\circ; \beta = -10^\circ$

.000	.4622		.7037				.000
.100	-.1346	.2395	-.1039	.3157			.100
.200	-.1316	.1940	-.1207	.2524	-.0940	.3058	.200
.300	-.1346	.1702	-.1287	.2098			.300
.400	-.1346	.1475	-.1346	.1772	-.1099	.2326	.400
.500	-.1366	.1247	-.1395	.1504			.500
.600	-.1366	.1049	-.1395	.1277	-.1237	.1742	.600
.700	-.1455	.0812	-.1366	.1108			.700
.800	-.1475	.0782	-.1346	.1049	-.1287	.1346	.800
.900	-.1455	.0812	-.1316	.0980			.900

$\alpha = 20^\circ; \beta = -10^\circ$

.000	.3564		.5881				.000
.100	-.1505	.4376	-.1455	.5693			.100
.200	-.1535	.3851	-.1505	.4802	-.1396	.5990	.200
.300	-.1564	.3653	-.1535	.4248			.300
.400	-.1564	.3356	-.1535	.3812	-.1455	.4871	.400
.500	-.1535	.3119	-.1535	.3554			.500
.600	-.1535	.2822	-.1505	.3287	-.1505	.4010	.600
.700	-.1505	.2564	-.1505	.3020			.700
.800	-.1455	.2564	-.1475	.2960	-.1455	.3386	.800
.900	-.1455	.2594	-.1396	.2861			.900

$\alpha = 0^\circ; \beta = 0^\circ$

.000	.9921		1.0515				.000
.100	.0178	.0554	.0505	.0584			.100
.200	-.0119	.0158	.0208	.0356	.0663	.0653	.200
.300	-.0228	-.0040	-.0010	.0158			.300
.400	-.0228	-.0109	-.0149	.0030	.0208	.0257	.400
.500	-.0228	-.0208	-.0287	-.0069			.500
.600	-.0307	-.0307	-.0416	-.0208	-.0099	-.0040	.600
.700	-.0416	-.0366	-.0475	-.0307			.700
.800	-.0416	-.0366	-.0475	-.0366	-.0307	-.0238	.800
.900	-.0416	-.0366	-.0475	-.0406			.900

$\alpha = 5^\circ; \beta = 0^\circ$

.000	.9917		1.0887				.000
.100	-.0663	.1722	-.0040	.1821			.100
.200	-.0930	.1158	-.0307	.1455	.0020	.1722	.200
.300	-.1069	.0891	-.0505	.1257			.300
.400	-.1148	.0663	-.0633	.0960	-.0337	.1227	.400
.500	-.1128	.0495	-.0742	.0792			.500
.600	-.1069	.0366	-.0881	.0594	-.0554	.0831	.600
.700	-.1019	.0198	-.0960	.0426			.700
.800	-.0960	.0168	-.1019	.0327	-.0693	.0564	.800
.900	-.0930	.0129	-.1039	.0297			.900



TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(b)  $M = 2.88$  - Continued

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 10^\circ; \beta = 0^\circ$

.000	.9275		1.1107				.000
.100	-.1148	.3069	-.0525	.3663			.100
.200	-.1317	.2376	-.0742	.3009	-.0505	.3267	.200
.300	-.1396	.2010	-.0881	.2643			.300
.400	-.1396	.1683	-.0990	.2207	-.0802	.2742	.400
.500	-.1317	.1455	-.1069	.1911			.500
.600	-.1287	.1218	-.1178	.1614	-.0960	.2178	.600
.700	-.1287	.0990	-.1237	.1416			.700
.800	-.1287	.0891	-.1287	.1287	-.1020	.1752	.800
.900	-.1257	.0851	-.1287	.1188			.900

$\alpha = 15^\circ; \beta = 0^\circ$

.000	.8836		1.1162				.000
.100	-.1346	.4393	-.0772	.5611			.100
.200	-.1425	.3562	-.0960	.4661	-.0742	.5482	.200
.300	-.1425	.3166	-.1098	.4027			.300
.400	-.1395	.2771	-.1178	.3533	-.0960	.4522	.400
.500	-.1346	.2543	-.1257	.3206			.500
.600	-.1366	.2246	-.1316	.2840	-.1098	.3661	.600
.700	-.1366	.1949	-.1366	.2573			.700
.800	-.1346	.1850	-.1395	.2405	-.1148	.3067	.800
.900	-.1316	.1880	-.1425	.2306			.900

$\alpha = 20^\circ; \beta = 0^\circ$

.000	.8360		1.1222				.000
.100	-.1456	.5913	-.0990	.7637			.100
.200	-.1535	.5022	-.1149	.6418	-.0961	.7805	.200
.300	-.1506	.4596	-.1258	.5656			.300
.400	-.1535	.4101	-.1317	.4962	-.1129	.6379	.400
.500	-.1476	.3764	-.1397	.4596			.500
.600	-.1506	.3437	-.1456	.4130	-.1258	.5190	.600
.700	-.1476	.3041	-.1506	.3803			.700
.800	-.1456	.2942	-.1535	.3605	-.1317	.4358	.800
.900	-.1426	.3011	-.1535	.3467			.900

$\alpha = 0^\circ; \beta = 10^\circ$

.000	1.4116		1.5353				.000
.100	.1099	.1099	.1732	.1524			.100
.200	.0535	.0564	.1237	.1128	.1812	.1623	.200
.300	.0238	.0267	.0911	.0832			.300
.400	.0020	.0069	.0693	.0634	.1188	.1099	.400
.500	-.0089	-.0030	.0475	.0436			.500
.600	-.0198	-.0129	.0238	.0267	.0752	.0634	.600
.700	-.0287	.0267	.0099	.0099			.700
.800	-.0337	-.0267	.0020	.0040	.0366	.0297	.800
.900	-.0337	-.0267	-.0040	-.0030			.900

$\alpha = 10^\circ; \beta = 10^\circ$

.000	1.4354		1.5968				.000
.100	-.0307	.4180	.0317	.4685			.100
.200	-.0693	.3259	-.0040	.4121	.0149	.4151	.200
.300	-.0882	.2754	-.0228	.3586			.300
.400	-.1020	.2358	-.0367	.3150	-.0198	.3487	.400
.500	-.1070	.2060	-.0505	.2823			.500
.600	-.1179	.1793	-.0664	.2427	-.0446	.2793	.600
.700	-.1238	.1496	-.0773	.2130			.700
.800	-.1258	.1397	-.0822	.1932	-.0505	.2159	.800
.900	-.1258	.1327	-.0852	.1823			.900



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TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(b)  $M = 2.88$  - Concluded

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

 $\alpha = 20^\circ; \beta = 10^\circ$ 

.000	1.4205		1.6890				.000
.100	-.0931	.8034	-.0228	1.0025			.100
.200	-.1129	.6746	-.0475	.8499	-.0773	.8866	.200
.300	-.1238	.6013	-.0664	.7538			.300
.400	-.1317	.5359	-.0802	.6677	-.0822	.7469	.400
.500	-.1367	.4993	-.0911	.6181			.500
.600	-.1426	.4497	-.1040	.5587	-.0911	.5953	.600
.700	-.1456	.4032	-.1129	.5022			.700
.800	-.1476	.3903	-.1179	.4725	-.0713	.4725	.800
.900	-.1456	.3903	-.1179	.4567			.900

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TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(c)  $M = 4.65$

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 0^\circ; \beta = -10^\circ$

.000	.2127		.7172				.000
.100	-.0016	.0676	.0214	.0346			.100
.200	.0016	.0181	-.0016	.0181	.0297	.0280	.200
.300	-.0016	.0115	-.0115	.0016			.300
.400	-.0066	.0016	-.0165	-.0049	.0016	.0115	.400
.500	-.0066	-.0099	-.0198	-.0099			.500
.600	-.0115	-.0165	-.0198	-.0214	-.0115	-.0165	.600
.700	-.0165	-.0214	-.0198	-.0214			.700
.800	-.0165	-.0214	-.0247	-.0264	-.0198	-.0214	.800
.900	-.0198	-.0264	-.0198	-.0264			.900

$\alpha = 15^\circ; \beta = -10^\circ$

.000	.1946		.7782				.000
.100	-.0561	.2622	-.0346	.3693			.100
.200	-.0528	.2242	-.0478	.3067	-.0379	.3578	.200
.300	-.0528	.2012	-.0478	.2572			.300
.400	-.0528	.1847	-.0528	.2292	-.0478	.3017	.400
.500	-.0528	.1632	-.0528	.2012			.500
.600	-.0561	.1451	-.0528	.1797	-.0478	.2341	.600
.700	-.0561	.1286	-.0561	.1566			.700
.800	-.0561	.1237	-.0561	.1517	-.0528	.1896	.800
.900	-.0561	.1237	-.0561	.1451			.900

$\alpha = 28^\circ; \beta = -10^\circ$

.000	.1847		.9398				.000
.100	-.0610	.6150	-.0429	.8607			.100
.200	-.0610	.5705	-.0528	.7486	-.0379	.9547	.200
.300	-.0610	.5474	-.0561	.6810			.300
.400	-.0610	.5194	-.0561	.6315	-.0528	.8211	.400
.500	-.0660	.5095	-.0610	.6200			.500
.600	-.0561	.4864	-.0561	.5820	-.0528	.7040	.600
.700	-.0561	.4699	-.0561	.5474			.700
.800	-.0561	.4633	-.0561	.5260	-.0478	.6035	.800
.900	-.0561	.4584	-.0561	.5144			.900

$\alpha = 0^\circ; \beta = 0^\circ$

.000	.1500		1.2448				.000
.100	.0429	.0742	.0890	.0907			.100
.200	.0115	.0181	.0528	.0577	.0627	.0676	.200
.300	-.0066	.0016	.0396	.0346			.300
.400	-.0165	-.0148	.0247	.0115	.0297	.0346	.400
.500	-.0247	-.0214	.0165	.0016			.500
.600	-.0297	-.0264	-.0016	-.0099	.0115	.0066	.600
.700	-.0346	-.0330	-.0115	-.0148			.700
.800	-.0379	-.0379	-.0165	-.0214	.0033	-.0049	.800
.900	-.0379	-.0379	-.0198	-.0214			.900

$\alpha = 5^\circ; \beta = 0^\circ$

.000	.1583		1.2844				.000
.100	-.0016	.1616	.0396	.1847			.100
.200	-.0247	.1072	.0115	.1401	.0247	.1451	.200
.300	-.0346	.0841	-.0016	.1171			.300
.400	-.0379	.0676	-.0115	.0956	-.0066	.1072	.400
.500	-.0478	.0511	-.0247	.0841			.500
.600	-.0478	.0396	-.0247	.0676	-.0165	.0791	.600
.700	-.0528	.0280	-.0346	.0511			.700
.800	-.0528	.0231	-.0346	.0445	-.0247	.0627	.800
.900	-.0478	.0181	-.0346	.0396			.900



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TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Continued

(c)  $M = 4.65$  - Continued

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

 $\alpha = 10^\circ; \beta = 0^\circ$ 

.000	.1500		1.3619				.000
.100	-.0198	.2737	.0165	.3116			.100
.200	-.0379	.2061	-.0016	.2671	-.0066	.2407	.200
.300	-.0429	.1731	-.0165	.2341			.300
.400	-.0478	.1451	-.0247	.2012	-.0198	.2061	.400
.500	-.0528	.1286	-.0346	.1781			.500
.600	-.0610	.1072	-.0379	.1517	-.0297	.1616	.600
.700	-.0561	.0890	-.0379	.1336			.700
.800	-.0528	.0841	-.0429	.1237	-.0346	.1451	.800
.900	-.0528	.0791	-.0429	.1171			.900

 $\alpha = 15^\circ; \beta = 0^\circ$ 

.000	.1764		1.4922				.000
.100	-.0247	.4237	.0115	.5359			.100
.200	-.0379	.3413	-.0066	.4633	-.0297	.3792	.200
.300	-.0478	.3017	-.0198	.4073			.300
.400	-.0478	.2688	-.0247	.3578	-.0346	.3578	.400
.500	-.0528	.2407	-.0346	.3182			.500
.600	-.0528	.2077	-.0379	.2786	-.0379	.3067	.600
.700	-.0528	.1847	-.0429	.2457			.700
.800	-.0528	.1682	-.0478	.2341	-.0346	.2688	.800
.900	-.0528	.1632	-.0429	.2242			.900

 $\alpha = 28^\circ; \beta = 0^\circ$ 

.000	.1500		1.6439				.000
.100	-.0379	.9382	.0066	1.2795			.100
.200	-.0429	.8326	-.0115	1.0668	-.0429	.9382	.200
.300	-.0478	.7716	-.0247	.8046			.300
.400	-.0528	.7040	-.0346	.6760	-.0429	.8376	.400
.500	-.0528	.6595	-.0429	.5919			.500
.600	-.0561	.6035	-.0478	.5589	-.0528	.7156	.600
.700	-.0561	.5474	-.0528	.5095			.700
.800	-.0561	.5474	-.0528	.4864	-.0478	.6150	.800
.900	-.0478	.5425	-.0429	.4864			.900

 $\alpha = 0^\circ; \beta = 10^\circ$ 

.000	.1418		1.3108				.000
.100	.1533	.1632	.0841	.0791			.100
.200	.0940	.0907	.0841	.0676	.0478	.0462	.200
.300	.0660	.0627	.0758	.0676			.300
.400	.0478	.0396	.0660	.0577	.0165	.0181	.400
.500	.0346	.0297	.0528	.0511			.500
.600	.0214	.0115	.0396	.0396	.0033	.0016	.600
.700	.0115	.0016	.0297	.0346			.700
.800	.0115	.0066	.0297	.0297	-.0066	-.0049	.800
.900	.0066	.0016	.0247	.0231			.900

 $\alpha = 15^\circ; \beta = 10^\circ$ 

.000	.1682		1.3339				.000
.100	.0346	.6463	-.0165	.4303			.100
.200	.0016	.5194	-.0165	.4584	-.0247	.3298	.200
.300	-.0115	.4518	-.0198	.4402			.300
.400	-.0247	.3908	-.0247	.4073	-.0429	.2737	.400
.500	-.0346	.3413	-.0346	.3743			.500
.600	-.0429	.2902	-.0346	.3462	-.0429	.2242	.600
.700	-.0478	.2523	-.0379	.3232			.700
.800	-.0478	.2292	-.0379	.3133	-.0379	.1896	.800
.900	-.0478	.2176	-.0379	.3067			.900

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TABLE III. - PRESSURE COEFFICIENTS MEASURED ON WING - Concluded

(c)  $M = 4.65$  - Concluded

$\frac{x_w}{c_w}$	$C_p$ at $\frac{y}{b_w/2}$ of —						$\frac{x_w}{c_w}$
	.447		.670		.894		
	Upper	Lower	Upper	Lower	Upper	Lower	

$\alpha = 28^\circ; \beta = 10^\circ$

.000	.1682		1.2003				.000
.100	.0066	1.2036	-.0247	1.1261			.100
.200	-.0198	1.0256	-.0297	.9926	-.0429	.9596	.200
.300	-.0379	.9481	-.0429	.8871			.300
.400	-.0478	.9365	-.0429	.8145	-.0528	.8871	.400
.500	-.0478	.7700	-.0379	.7700			.500
.600	-.0528	.6364	-.0379	.7304	-.0528	.7914	.600
.700	-.0561	.5804	-.0429	.6974			.700
.800	-.0528	.5919	-.0478	.6744	-.0478	.6744	.800
.900	-.0528	.5853	-.0429	.6579			.900



TABLE IV - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL

(a)  $M = 2.30$ 

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.4051		.1841	
.100		.1217		
.200	-.0583	.0726	-.0532	.0972
.300	-.0276			
.400	-.0563	.0348	-.0982	.0450
.500	-.0583	.0174		
.600			-.0931	
.700	-.0696	-.0276		
.800	-.0675	-.0481	-.0931	-.0205
.900		-.0624		

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.0419		.2762	
.100		.4491		
.200	-.2281	.3867	-.2363	.4010
.300	-.2363			
.400	-.2394	.2700	-.2414	.3038
.500	-.2332	.2107		
.600			-.2445	
.700	-.1718	.1176		
.800	-.1626	.0931	-.2475	.1483
.900		.0726		

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.5024		.1355	
.100		.1692		
.200	-.0988	.1101	-.0876	.1549
.300	-.1050			
.400	-.1019	.0520	-.1050	.0795
.500	-.1162	.0448		
.600			-.1274	
.700	-.0958	.0204		
.800	-.0907	.0234	-.1498	.0000
.900		.0377		

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.2589		.1709	
.100		.4147		
.200	-.2286	.3368	-.2225	.3914
.300	-.2195			
.400	-.2114	.2883	-.2336	.3055
.500	-.2063	.2852		
.600			-.2286	
.700	-.1972	.2609		
.800	-.2033	.2539	-.2286	.2438
.900		.2508		

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.4772		.2112	
.100		.2904		
.200	-.1330	.2081	-.1025	.2934
.300	-.1523			
.400	-.1604	.1320	-.1299	.1980
.500	-.1695	.1117		
.600			-.1553	
.700	-.1807	.0914		
.800	-.1777	.2183	-.1523	.0914
.900		.2528		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.1095		.2097	
.100		.3314		
.200	-.2025	.2833	-.2250	.3079
.300	-.1831			
.400	-.1770	.1974	-.2281	.2250
.500	-.1493	.1453		
.600			-.2302	
.700	-.1463	.0624		
.800	-.1463	.0348	-.2250	.0859
.900		.0133		

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.5574		.1294	
.100		.0683		
.200	-.0540	.0275	.0387	.0652
.300	-.0428			
.400	-.0285	-.0112	-.0346	.0061
.500	-.0683	-.0316		
.600			-.0988	
.700	-.0571	-.0448		
.800	-.0510	-.0448	-.0938	-.0591
.900		-.0418		

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.3503		.1563	
.100		.2944		
.200	-.1777	.2183	-.1949	.2701
.300	-.1838			
.400	-.1746	.1594	-.2030	.1838
.500	-.1665	.1421		
.600			-.2173	
.700	-.1584	.1360		
.800	-.1553	.1391	-.2061	.1046
.900		.1391		

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.8244		.2079	
.100		.0408		
.200	-.0275	.0061	.1630	.0275
.300	-.0255			
.400	-.0255	-.0346	.0927	-.0214
.500	-.0112	-.0520		
.600			-.0112	
.700	-.0204	-.0795		
.800	-.0204	-.0836	-.0428	-.0795
.900		-.0795		

 $\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.000	.4437		.1838	
.100		.4173		
.200	-.2112	.3320	-.1970	.4213
.300	-.2254			
.400	-.2284	.2426	-.1858	.3076
.500	-.2223	.2213		
.600			-.1970	
.700	-.2061	.4000		
.800	-.1949	.4142	-.2030	.3766
.900		.4142		



TABLE IV. - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.0316	.4664	.2817	
.100				
.200	-.2296	.3980	-.2358	.4082
.300	-.2409			
.400	-.2409	.2878	-.2409	.3154
.500	-.2388	.2266		
.600			-.2439	
.700	-.1735	.1306		
.800	-.1684	.0970	-.2439	.1582
.900		.0868		

$\alpha = 10^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.1634	.3104	.1797	
.100				
.200	-.1736	.2563	-.2103	.3073
.300	-.1623			
.400	-.1542	.2011	-.2165	.2359
.500	-.1511	.1777		
.600			-.2165	
.700	-.1572	.1093		
.800	-.1429	.0888	-.2073	.1225
.900		.0715		

$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.5558	.0570	.1517	
.100				
.200	-.0590	.0265	.0499	.0611
.300	-.0397			
.400	-.0254	-.0041	-.0366	.0061
.500	-.0590	-.0244		
.600			-.0987	
.700	-.0509	-.0377		
.800	-.0448	-.0112	-.0875	-.0519
.900		.0916		

$\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.2530	.4102	.1918	
.100				
.200	-.2214	.3530	-.2214	.4142
.300	-.2163			
.400	-.2071	.3020	-.2183	.3183
.500	-.2020	.3020		
.600			-.2071	
.700	-.1990	.2673		
.800	-.2020	.3632	-.1684	.2643
.900		.4948		

$\alpha = 10^\circ; \beta = 5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.3683	.2742	.1964	
.100				
.200	-.1719	.2230	-.1627	.2916
.300	-.1831			
.400	-.1944	.1453	-.1606	.1923
.500	-.2026	.1207		
.600			-.1831	
.700	-.1852	.1279		
.800	-.1606	.3386	-.1463	.1013
.900		.3765		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 0^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.4533	.0766	.1419	
.100				
.200	-.0500	.0500	-.0225	.0602
.300	-.0388			
.400	-.0480	.0123	-.0725	.0225
.500	-.0449	.0020		
.600			-.1062	
.700	-.0500	-.0317		
.800	-.0531	-.0357	-.0817	-.0357
.900		-.0419		

$\alpha = 15^\circ; \beta = -5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.1348	.4370	.1685	
.100				
.200	-.2297	.3757	-.2246	.4401
.300	-.2165			
.400	-.2134	.3206	-.2216	.3543
.500	-.2185	.2665		
.600			-.2216	
.700	-.1879	.1909		
.800	-.1685	.1736	-.2216	.2083
.900		.1705		

$\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.3103	.2817	.1704	
.100				
.200	-.1796	.2378	-.1939	.2858
.300	-.1796			
.400	-.1684	.1735	-.2051	.1970
.500	-.1653	.1562		
.600			-.2164	
.700	-.1602	.1562		
.800	-.1541	.2041	-.1766	.1255
.900		.3297		

$\alpha = 0^\circ; \beta = 5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.7025	.0406	.1888	
.100				
.200	-.0467	.0000	.1218	.0437
.300	-.0406			
.400	-.0020	-.0274	.0152	-.0142
.500	-.0518	-.0447		
.600			-.0711	
.700	-.0355	-.0640		
.800	-.0406	.0102	-.0853	-.0782
.900		.0873		

$\alpha = 15^\circ; \beta = 5^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.000	.3665	.4013	.1822	
.100				
.200	-.2017	.3471	-.2099	.4156
.300	-.2099			
.400	-.2160	.2621	-.1986	.3061
.500	-.2211	.2652		
.600			-.1710	
.700	-.2099	.3604		
.800	-.1904	.5416	-.1536	.4351
.900		.5958		



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TABLE IV. - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.000	.4452		.2017	
.100		.2802		
.200	-.1385	.2262	-.1019	.3148
.300	-.1548			
.400	-.1630	.1447	-.1324	.2088
.500	-.1722	.1212		
.600			-.1406	
.700	-.0621	.2160		
.800	-.0540	.3657	.0163	.1925
.900		.4340		

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.000	.2792		.2853	
.100		.4453		
.200	-.2283	.3903	-.2364	.4107
.300	-.2334			
.400	-.2364	.2762	-.2425	.3108
.500	-.2313	.2171		
.600			-.2395	
.700	-.1661	.1549		
.800	-.1641	.1172	-.2446	.1763
.900		.0795		

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.000	.1620		.1620	
.100		.4137		
.200	-.2252	.3475	-.2222	.3964
.300	-.2171			
.400	-.2109	.2925	-.2313	.3129
.500	-.2058	.2853		
.600			-.2252	
.700	-.2028	.2548		
.800	-.2109	.2272	-.2252	.2476
.900		.1997		

 $\alpha = 15^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.000	.1977		.1916	
.100		.4321		
.200	-.2140	.3383	-.1967	.4321
.300	-.2252			
.400	-.2303	.2446	-.1885	.3179
.500	-.2222	.2242		
.600			-.1946	
.700	-.1997	.3353		
.800	-.1946	.3414	-.2028	.3179
.900		.3067		

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.000	.1498		.1498	
.100		.2680		
.200	-.1794	.2293	-.1967	.2813
.300	-.1794			
.400	-.1681	.1630	-.2018	.1906
.500	-.1651	.1488		
.600			-.2130	
.700	-.1569	.1559		
.800	-.1539	.1661	-.2160	.1172
.900		.2323		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.000	.4290		.2237	
.100		.4178		
.200	-.2135	.3463	-.1992	.4556
.300	-.2278			
.400	-.2298	.2574	-.1910	.3258
.500	-.2217	.2411		
.600			-.1941	
.700	-.1941	.5158		
.800	-.1604	.6425	-.0899	.5638
.900		.7406		

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.000	.1457		.1457	
.100		.2904		
.200	-.1773	.2242	-.1916	.2690
.300	-.1834			
.400	-.1773	.1549	-.1997	.1865
.500	-.1692	.1416		
.600			-.2109	
.700	-.1549	.1416		
.800	-.1498	.1549	-.1997	.1029
.900		.1202		

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.000	.2181		.2181	
.100		.2955		
.200	-.1355	.2160	-.1050	.3057
.300	-.1529			
.400	-.1610	.1396	-.1304	.2018
.500	-.1692	.1162		
.600			-.1498	
.700	-.1804	.0887		
.800	-.1773	.1987	-.1529	.0948
.900		.2058		

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.000	.2690		.2690	
.100		.4586		
.200	-.2272	.4056	-.2364	.4056
.300	-.2385			
.400	-.2385	.2731	-.2415	.2945
.500	-.2334	.2069		
.600			-.2415	
.700	-.1712	.1549		
.800	-.1651	.1895	-.2446	.1763
.900		.1549		

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.000	.1610		.1610	
.100		.3893		
.200	-.2272	.3587	-.2222	.4035
.300	-.2191			
.400	-.2130	.2955	-.2303	.3200
.500	-.2079	.3027		
.600			-.2252	
.700	-.1906	.3027		
.800	-.1885	.2791	-.2191	.3475
.900		.3760		

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TABLE IV. - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(a)  $M = 2.30$  - Concluded

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.000	.1926	.2690	.1977	
.100				
.200	-.1335	.2272	-.1019	.2864
.300	-.1478			
.400	-.1559	.1427	-.1274	.2099
.500	-.1651	.1223		
.600			-.1508	
.700	-.1763	.2242		
.800	-.1702	.3322	-.1508	.1009
.900		.3607		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.000	.1967		.1967	
.100		.4035		
.200	-.2130	.3475	-.1987	.4423
.300	-.2242			
.400	-.2303	.2558	-.1906	.3302
.500	-.2272	.2772		
.600			-.1936	
.700	-.2018	.5330		
.800	-.1936	.5187	-.2018	.5055
.900		.4912		



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TABLE IV. - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(b)  $M = 2.88$ 

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.4573	.1119	.1237	
.100		.0822		.1020
.200	-.0396		-.0069	
.300	-.0287			
.400	-.0228	.0426	-.0307	.0594
.500	-.0396	.0257		
.600			-.0802	
.700	-.0445	.0059		
.800	-.0445	-.0069	-.0802	.0030
.900		-.0139		

 $\alpha = 20^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.2158	.5891	.1455	
.100		.5228		.5861
.200	-.1475		-.1426	
.300	-.1564			
.400	-.1564	.4446	-.1535	.4871
.500	-.1535	.3812		
.600			-.1535	
.700	-.1455	.2792		
.800	-.1475	.2426	-.1475	.3119
.900		.2228		

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.5018	.1524	.1188	
.100		.1188		.1692
.200	-.0713		-.0525	
.300	-.0821			
.400	-.0911	.0732	-.0742	.1059
.500	-.0930	.0525		
.600			-.0990	
.700	-.0911	.0267		
.800	-.0772	.0168	-.1039	.0327
.900		.0129		

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.4473	.3928	.1346	
.100		.3463		.4423
.200	-.1316		-.1128	
.300	-.1395			
.400	-.1455	.2672	-.1286	.3305
.500	-.1534	.2444		
.600			-.1425	
.700	-.1455	.1979		
.800	-.1474	.1979	-.1455	.2108
.900		.2147		

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.8870	.0733	.1950	
.100		.0436	.1267	.0366
.200	.0663			
.300	-.0010			
.400	-.0287	.0000	.0990	.0000
.500	.0099	-.0129		
.600			.0475	
.700	-.0148	-.0327		
.800	-.0069	-.0396	.0129	-.0396
.900		-.0426		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.2257	.3058	.1237	
.100		.2623		.2920
.200	-.1287		-.1366	
.300	-.1346			
.400	-.1366	.1970	-.1475	.2296
.500	-.1425	.1871		
.600			-.1475	
.700	-.1178	.1178		
.800	-.1148	.0911	-.1455	.1405
.900		.0713		

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.5931	.0782	.1139	
.100		.0455		.0653
.200	-.0178		.0614	
.300	-.0584			
.400	-.0366	.0129	.0337	.0228
.500	-.0257	-.0040		
.600			-.0396	
.700	-.0366	-.0208		
.800	-.0366	-.0307	-.0663	-.0267
.900		-.0307		

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.4049	.2643	.1247	
.100		.2207		.2940
.200	-.1257		-.1148	
.300	-.1346			
.400	-.1366	.1614	-.1346	.2148
.500	-.1287	.1356		
.600			-.1475	
.700	-.1208	.0990		
.800	-.1208	.0921	-.1505	.1119
.900		.0891		

 $\alpha = 20^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.4695	.5586	.1565	
.100		.4992		.6082
.200	-.1317		-.1149	
.300	-.1397			
.400	-.1476	.4101	-.1317	.4764
.500	-.1535	.3803		
.600			-.1456	
.700	-.1476	.3635		
.800	-.1506	.3566	-.1397	.3368
.900		.3467		

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.6261	.2992	.1625	
.100		.2526		.2922
.200	-.1149		-.0664	
.300	-.0822			
.400	-.0882	.1823	-.0743	.2130
.500	-.1040	.1496		
.600			-.0931	
.700	-.1179	.1060		
.800	-.1209	.0931	-.0991	.1199
.900		.0832		

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TABLE IV.- PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(b)  $M = 2.88$  - Continued

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.000	.7211		.1615	
.100		.6251		
.200	-.1070	.5488	-.0991	.6280
.300	-.1209			
.400	-.1317	.4260	-.1179	.4864
.500	-.1397	.3863		
.600			-.1347	
.700	-.1456	.3665		
.800	-.1476	.4923	-.1397	.3309
.900		.5220		

$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.000	.4650		.1795	
.100		.5583		
.200	-.1309	.4958	-.1111	.6118
.300	-.1388			
.400	-.1438	.4125	-.1279	.4789
.500	-.1527	.3798		
.600			-.1418	
.700	-.1418	.3589		
.800	-.1388	.3629	-.1329	.3461
.900		.4323		

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.000	.6168		.1091	
.100		.2995		
.200	-.1111	.2499	-.0595	.2895
.300	-.0734			
.400	-.0873	.1834	-.0674	.2132
.500	-.1001	.1507		
.600			-.0892	
.700	-.0952	.1041		
.800	-.0238	.0902	-.0297	.1269
.900		.2866		

$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.000	.1514		.1564	
.100		.5701		
.200	-.1287	.4870	-.1118	.5909
.300	-.1396			
.400	-.1445	.3999	-.1287	.4702
.500	-.1505	.3633		
.600			-.1396	
.700	-.1425	.3464		
.800	-.1445	.3633	-.1336	.3266
.900		.3435		

$\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.000	.1396		.1396	
.100		.5870		
.200	-.1445	.5286	-.1415	.5870
.300	-.1554			
.400	-.1524	.4434	-.1505	.4850
.500	-.1524	.3761		
.600			-.1505	
.700	-.1475	.2633		
.800	-.1505	.2257	-.1505	.2940
.900		.3385		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

$\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.000	.2220		.1734	
.100		.5886		
.200	-.1437	.5193	-.1417	.5827
.300	-.1546			
.400	-.1526	.4400	-.1496	.4826
.500	-.1526	.3805		
.600			-.1526	
.700	-.1437	.2745		
.800	-.1467	.2418	-.1467	.3112
.900		.2190		

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.000	.8840		.1528	
.100		.0744		
.200	.0695	.0417	.1300	.0347
.300	.0010			
.400	-.0238	-.0020	.1022	-.0020
.500	.0119	-.0149		
.600			.0506	
.700	-.0149	-.0357		
.800	-.0069	-.0218	.0179	-.0387
.900		.0913		

$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.000	.7139		.1249	
.100		.6247		
.200	-.1061	.5414	-.0982	.6177
.300	-.1220			
.400	-.1309	.4194	-.1170	.4789
.500	-.1388	.3827		
.600			-.1249	
.700	-.1358	.3589		
.800	-.1220	.6911	-.0922	.3361
.900		.7605		

$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.000	.1307		.1307	
.100		.6424		
.200	-.1089	.5414	-.1010	.6018
.300	-.1227			
.400	-.1336	.4078	-.1208	.4711
.500	-.1445	.3741		
.600			-.1336	
.700	-.1445	.3405		
.800	-.1445	.4781	-.1336	.3237
.900		.4543		

$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.000	.1613		.1613	
.100		.5761		
.200	-.1247	.4919	-.1089	.6008
.300	-.1366			
.400	-.1415	.4068	-.1247	.4781
.500	-.1475	.3722		
.600			-.1386	
.700	-.1415	.3454		
.800	-.1415	.3583	-.1307	.3276
.900		.3761		



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TABLE IV. - PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(b)  $M = 2.88$  - Concluded

$\frac{x_h}{c_h}$	C <sub>p</sub> at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 20^\circ$ ;  $\beta = 10^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ 

.000	.1336	.6513	.1277	
.100		.5563	-.0921	.6206
.200	-.1000			
.300	-.1168	.4197	-.1109	.4850
.400	-.1336	.3890		
.500	-.1386		-.1336	
.600		.3722		
.700	-.1415	.5800	-.1227	.3316
.800	-.1415	.6750		
.900				

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TABLE IV.- PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Continued

(c)  $M = 4.65$ 

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.3397		.2127	
.100		.0676		
.200	-.0165	.0511	-.0115	.0561
.300	-.0247			
.400	-.0346	.0231	-.0247	.0396
.500	-.0379	.0115		
.600			-.0346	
.700	-.0297	.0016		
.800	-.0346	-.0099	-.0346	.0066
.900		-.0165		

 $\alpha = 28^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.7601		.1847	
.100		.9052		
.200	-.0297	.8211	-.0066	.9992
.300	-.0429			
.400	-.0478	.7205	-.0297	.8491
.500	-.0478	.6645		
.600			-.0429	
.700	-.0379	.5705		
.800	-.0429	.5194	-.0429	.6876
.900		.4699		

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.5738		.1583	
.100		.1336		
.200	-.0297	.1072	-.0115	.1072
.300	-.0429			
.400	-.0478	.0676	-.0346	.0725
.500	-.0528	.0511		
.600			-.0429	
.700	-.0429	.0346		
.800	-.0478	.0231	-.0478	.0346
.900		.0231		

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.9415		.1764	
.100		.4237		
.200	-.0066	.3512	.0214	.4468
.300	-.0247			
.400	-.0346	.2737	-.0066	.3512
.500	-.0429	.2407		
.600			-.0297	
.700	-.0429	.1962		
.800	-.0478	.1847	-.0346	.2242
.900		.1731		

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.9876		.1418	
.100		.0857		
.200	.1253	.0511	.0940	.0577
.300	.0758			
.400	.0396	.0297	.0627	.0231
.500	.0115	.0181		
.600			.0346	
.700	-.0016	.0066		
.800	.0033	.0016	.0297	-.0049
.900		-.0049		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.5540		.1946	
.100		.3743		
.200	-.0346	.3232	-.0165	.4023
.300	-.0429			
.400	-.0528	.2737	-.0346	.3182
.500	-.0561	.2523		
.600			-.0478	
.700	-.0429	.2012		
.800	-.0528	.1847	-.0478	.2242
.900		.1847		

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.5095		.1500	
.100		.0297		
.200	.0247	.0181	.0066	.0115
.300	-.0066			
.400	-.0297	-.0049	-.0115	-.0099
.500	-.0346	-.0148		
.600			-.0198	
.700	-.0297	-.0214		
.800	-.0297	-.0264	-.0198	-.0330
.900		-.0330		

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	.7519		.1583	
.100		.2572		
.200	-.0165	.2127	.0016	.2226
.300	-.0346			
.400	-.0429	.1451	-.0198	.1896
.500	-.0528	.1286		
.600			-.0379	
.700	-.0478	.0956		
.800	-.0528	.0841	-.0429	.1171
.900		.0791		

 $\alpha = 28^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	1.1410		.1418	
.100		1.0107		
.200	.0016	.8887	.0214	1.0058
.300	-.0165			
.400	-.0247	.7486	-.0016	.7535
.500	-.0346	.7040		
.600			-.0247	
.700	-.0297	.5985		
.800	-.0379	.5754	-.0297	.5359
.900		.5639		

 $\alpha = 15^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	1.2448			
.100		.5293		
.200	.0165	.4402	.0478	.3627
.300	-.0066			
.400	-.0198	.3413	.0165	.3017
.500	-.0346	.3017		
.600			-.0115	
.700	-.0379	.2242		
.800	-.0478	.1962	-.0198	.2176
.900		.1731		



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TABLE IV.- PRESSURE COEFFICIENTS MEASURED ON HORIZONTAL TAIL - Concluded

(c)  $M = 4.65$  - Concluded

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$ 

.000	1.2894		.1682	
.100		1.0651		
.200		.9151	.0429	.8524
.300				
.400		.6974	.0165	.7189
.500	-.0297	.6018		
.600			-.0066	
.700	-.0346	.4913		
.800	-.0297	.4798	-.0016	.5523
.900		.5474		

 $\alpha = 28^\circ; \beta = 10^\circ; \delta_V = -7.5^\circ; \delta_S = 0^\circ$ 

.000	.1781		.1698	
.100		1.0602		
.200	.0165	.9184	.0396	.8458
.300	-.0016			
.400	-.0148	.7057	.0115	.7222
.500	-.0297	.6035		
.600			-.0115	
.700	-.0346	.4913		
.800	-.0346	.4847	-.0115	.5589
.900		.5523		

$\frac{x_h}{c_h}$	$C_p$ at $\frac{y}{b_h/2}$ of —			
	.553		.766	
	Upper	Lower	Upper	Lower

 $\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$ 

.000	1.2976		.1599	
.100		1.0077		
.200	.0165	.8953	.0396	.8392
.300	-.0016			
.400	-.0165	.6876	.0115	.7106
.500	-.0297	.5969		
.600			-.0115	
.700	-.0297	.4847		
.800	-.0247	.4732	-.0066	.5639
.900		.8392		

 $\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 7.5^\circ; \delta_S = 0^\circ$ 

.000	.1830		.1830	
.100		1.0305		
.200	.0181	.9217	.0363	.8689
.300	.0000			
.400	-.0148	.7090	.0132	.7321
.500	-.0247	.6167		
.600			-.0049	
.700	-.0280	.5029		
.800	-.0280	.4963	-.0148	.5655
.900		.6282		

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TABLE V . - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL

(a)  $M = 2.30$ 

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1207	-.1084	.000	1.0301	.1841	.000	1.1191	1.0362	.000	1.1743	.1841
.682	-.1043	-.0900	.200	-.1534	-.1504	.100	-.1309	-.1401	.200	-.1156	-.1309
.699	-.1013	-.0859	.400	-.1207	-.1115	.200	-.1340	-.1432	.400	-.0869	-.1043
.748	-.1013	-.0798	.600	-.1084	-.0982	.300	-.1401	-.1432	.600	-.0869	-.1043
.835	-.1013	-.0726	.639	-.1238	-.1115	.400	-.1432	-.1371	.800	-.0900	-.0726
.949	-.1013	-.0491	.668	-.1043	-.0829	.500	-.1371	-.0982			
			.686	-.1084	-.0859	.600	-.1176	-.0757			
			.738	-.1013	-.0726	.700	-.0921	-.0624			
			.825	-.0951	-.0552	.800	-.0644	-.0491			
			.949	-.0788	-.0522	.900	-.0614	-.0460			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1596	-.0399	.000	.6608	.2148	.000	.6884	1.3748	.000	.7672	.2097
.682	-.1463	-.0041	.200	-.1268	-.1534	.100	-.1626	-.1013	.200	-.1718	-.0788
.699	-.1463	.0072	.400	-.1504	-.0624	.200	-.1657	-.1105	.400	-.1493	-.0655
.748	-.1371	.0174	.600	-.1657	-.0430	.300	-.1698	-.1207	.600	-.1381	-.0818
.835	-.1268	.0225	.639	-.1759	-.0491	.400	-.1729	-.1043	.800	-.1238	-.1534
.949	-.1268	.0286	.668	-.1657	-.0215	.500	-.1759	-.0593			
			.686	-.1698	-.0215	.600	-.1759	-.0102			
			.738	-.1698	.0031	.700	-.1821	-.0041			
			.825	-.1626	.0235	.800	-.1718	.0123			
			.949	-.1432	.0307	.900	-.1657	.0225			

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1698	.0511	.000	.7610	.2762	.000	.5606	1.6029	.000	.5667	.2762
.682	-.1596	.0829	.200	-.1504	-.1084	.100	-.1729	-.0430	.200	-.1964	-.0010
.699	-.1596	.0931	.400	-.1626	-.0266	.200	-.1790	-.0532	.400	-.1800	.0020
.748	-.1534	.1074	.600	-.1729	.0378	.300	-.1821	-.0696	.600	-.1718	-.0430
.835	-.1371	.1156	.639	-.1821	.0245	.400	-.1892	-.0460	.800	-.1657	-.1565
.949	-.0849	.1217	.668	-.1759	.0655	.500	-.1954	-.0430			
			.686	-.1790	.0276	.600	-.1954	-.0072			
			.738	-.1790	.0726	.700	-.1984	.0511			
			.825	-.1759	.0962	.800	-.1944	.0736			
			.949	-.1401	.1033	.900	-.2056	.0869			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.0020	.0214	.000	1.2412	.1294	.000	1.2412	1.2239	.000	1.2636	.1243
.682	.0143	.0306	.200	.0530	.0693	.100	.0958	.0958	.200	.1121	.0927
.699	.0112	.0234	.400	.0408	.0571	.200	.0764	.0856	.400	.0611	.0469
.748	.0082	.0306	.600	.0275	.0469	.300	.0693	.0724	.600	.0357	.0377
.835	.0051	.0306	.639	.0051	.0306	.400	.0571	.0693	.800	.0214	.0245
.949	.0214	.0336	.668	.0183	.0408	.500	.0530	.0438			
			.686	.0143	.0275	.600	.0438	.0408			
			.738	.0143	.0234	.700	.0306	.0377			
			.825	.0112	.0234	.800	.0214	.0214			
			.949	.0112	.0346	.900	.0132	.0143			

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0530	.0825	.000	1.0741	.1355	.000	1.0802	1.4073	.000	1.1016	.1355
.682	-.0408	.0927	.200	-.0112	.1600	.100	.0214	.1824	.200	.0387	.1702
.699	-.0438	.0897	.400	-.0214	.1345	.200	.0082	.1702	.400	-.0010	.1243
.748	-.0438	.0825	.600	-.0245	.1152	.300	-.0020	.1630	.600	-.0204	.1121
.835	-.0020	.0764	.639	-.0499	.0887	.400	-.0020	.1406	.800	-.0316	.0958
.949	.0214	.0764	.668	-.0336	.0968	.500	-.0082	.1213			
			.686	-.0367	.0825	.600	-.0173	.1152			
			.738	-.0408	.0825	.700	-.0214	.1080			
			.825	-.0408	.0795	.800	-.0316	.0887			
			.949	.0183	.0795	.900	-.0397	.0795			



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TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0934	.1584	.000	.9584	.1675	.000	.9198	1.5838	.000	.9472	.1563
.682	-.0802	.1736	.200	-.0508	.2579	.100	-.0254	.2802	.200	-.0152	.2447
.699	-.0832	.1665	.400	-.0670	.2386	.200	-.0386	.2640	.400	-.0518	.2162
.748	-.0904	.1563	.600	-.0772	.1929	.300	-.0447	.2640	.600	-.0660	.2030
.835	-.0284	.1482	.639	-.0934	.1706	.400	-.0508	.2315	.800	-.0772	.1777
.949	.0325	.1421	.668	-.0772	.1706	.500	-.0579	.2091			
			.686	-.0802	.1635	.600	-.0640	.2061			
			.738	-.0832	.1594	.700	-.0701	.1898			
			.825	-.0832	.1594	.800	-.0741	.1706			
			.949	.0457	.1594	.900	-.0822	.1543			

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1325	.2488	.000	.9376	.1709	.000	.8597	1.7316	.000	.7889	.1709
.682	-.1224	.2508	.200	-.0880	.3702	.100	-.0688	.3894	.200	-.0577	.3348
.699	-.1295	.2468	.400	-.1072	.3378	.200	-.0779	.3641	.400	-.0890	.3216
.748	-.1325	.2438	.600	-.1168	.2872	.300	-.0839	.3641	.600	-.1032	.3024
.835	-.1193	.2417	.639	-.1295	.2549	.400	-.0880	.3287	.800	-.1113	.2741
.949	-.0202	.2417	.668	-.1163	.2579	.500	-.0941	.3156			
			.686	-.1193	.2539	.600	-.1001	.2994			
			.738	-.1224	.2508	.700	-.1102	.2872			
			.825	-.1264	.2539	.800	-.1113	.2609			
			.949	.0121	.2539	.900	-.0809	.2458			

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.2140	.2079	.000	1.0904	.2079	.000	1.1301	1.1515	.000	1.1627	.2018
.682	.2334	.2415	.200	.3210	.3179	.100	.4178	.4148	.200	.4158	.3730
.699	.2436	.2588	.400	.2762	.2762	.200	.3628	.3628	.400	.2751	.2466
.748	.2497	.2558	.600	.2374	.2272	.300	.3343	.3404	.600	.2099	.1824
.835	.2466	.2272	.639	.2018	.1916	.400	.3047	.2986	.800	.1651	.1274
.949	.2048	.1824	.668	.2272	.2038	.500	.2884	.2466			
			.686	.2334	.1997	.600	.2568	.2181			
			.738	.2334	.2283	.700	.2140	.1794			
			.825	.2466	.2385	.800	.2130	.1630			
			.949	.2242	.2069	.900	.2099	.1916			

 $\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.1299	.3330	.000	.6711	.2112	.000	.6924	1.5066	.000	.7482	.2112
.682	.1492	.3320	.200	.0426	.5868	.100	.1259	.6934	.200	.1888	.5868
.699	.1492	.3350	.400	.0457	.5096	.200	.0944	.6294	.400	.1107	.4294
.748	.1746	.3320	.600	.1939	.3909	.300	.0904	.5645	.600	.0579	.3482
.835	.1523	.3198	.639	.1685	.3360	.400	.0873	.4812	.800	.1553	.2619
.949	.1198	.2680	.668	.1970	.3279	.500	.0782	.4264			
			.686	.1970	.3178	.600	.1066	.3777			
			.738	.2102	.3046	.700	.2264	.3228			
			.825	.2325	.3350	.800	.2619	.2843			
			.949	.1909	.3005	.900	.2558	.2650			

 $\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.0132	.4193	.000	.7645	.1838	.000	.5543	1.7279	.000	.5543	.1838
.682	.0071	.4213	.200	-.0284	.7381	.100	.0264	.8873	.200	.0985	.7188
.699	-.0030	.4386	.400	-.0345	.6487	.200	.0071	.7970	.400	.0538	.5421
.748	-.0315	.4416	.600	.1107	.4843	.300	.0071	.6934	.600	.1574	.4457
.835	-.0447	.4030	.639	.0782	.4193	.400	.0071	.5970	.800	.2467	.3482
.949	-.0579	.3289	.668	.0843	.4112	.500	.1198	.5320			
			.686	.0873	.4000	.600	.2132	.4741			
			.738	.0680	.3970	.700	.2487	.4102			
			.825	.0102	.4284	.800	.2497	.3716			
			.949	-.0315	.3624	.900	.1827	.3838			

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TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a) M = 2.30 - Continued

$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0163	.0521	.000	1.0455	.9843	.000	1.1231	1.0404	.000	1.1854	1.1456
.682	.0807	.1909	.200	-.1562	-.1429	.100	-.1338	-.1429	.200	-.1154	-.1368
.699	.1358	.3135	.400	-.1235	-.1103	.200	-.1368	-.1460	.400	-.0868	-.1103
.748	.2685	.4472	.600	.0092	.0123	.300	-.1429	-.1491	.600	-.0899	-.0327
.835	.3921	.4932	.639	.0123	.0357	.400	-.1491	-.1368	.800	-.0582	-.0388
.949	.4217	.3012	.668	.0521	.1327	.500	-.1368	-.0847			
			.686	.1103	.1777	.600	-.0388	.0194			
			.738	.3012	.2726	.700	-.0786	-.0265			
			.825	.4441	.4431	.800	-.0786	-.0582			
			.949	.4217	.4299	.900	-.0786	-.0847			

$\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0102	.1266	.000	.6746	1.2533	.000	.6859	1.3697	.000	.7695	1.4972
.682	.0388	.2674	.200	-.1204	-.1459	.100	-.1592	-.0939	.200	-.1715	-.0786
.699	.1225	.3664	.400	-.1429	-.0592	.200	-.1592	-.1102	.400	-.1490	-.0623
.748	.3307	.5624	.600	-.0357	.0908	.300	-.1623	-.1204	.600	-.1398	-.0102
.835	.5634	.6185	.639	-.0357	.0939	.400	-.1653	-.1010	.800	-.1041	-.0714
.949	.7257	.6093	.668	.0163	.1715	.500	-.1694	.0418			
			.686	.1072	.2745	.600	-.1337	.1000			
			.738	.2786	.4082	.700	-.1623	.0551			
			.825	.3174	.5756	.800	-.1459	.0000			
			.949	.3143	.6746	.900	-.1429	-.0235			

$\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0510	.2276	.000	.7614	1.4625	.000	.5603	1.5575	.000	.5715	1.7024
.682	.0469	.4042	.200	-.1684	-.1225	.100	-.1878	-.0572	.200	-.1960	-.0184
.699	.1745	.5205	.400	-.1847	-.0572	.200	-.2011	-.0765	.400	-.1847	-.0184
.748	.4787	.8634	.600	-.1327	.1684	.300	-.2011	-.0868	.600	-.1735	-.0408
.835	.5930	.8573	.639	-.0674	.2307	.400	-.2072	-.0633	.800	-.1592	-.0959
.949	.4950	.8185	.668	.0378	.5348	.500	-.2102	.0082			
			.686	.1653	.5583	.600	-.2011	.1653			
			.738	.3776	.6644	.700	-.2072	.1000			
			.825	.2307	.9277	.800	-.1827	.0143			
			.949	.2531	.8492	.900	-.1847	.0143			

$\alpha = 0^\circ; \beta = -5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.1317	.1317	.000	1.1813	1.1425	.000	1.2038	1.1650	.000	1.2314	1.2201
.682	.2093	.2502	.200	-.0623	-.0694	.100	-.0306	-.0368	.200	-.0194	-.0337
.699	.3094	.3655	.400	-.0459	-.0368	.200	-.0429	-.0429	.400	-.0082	-.0306
.748	.6494	.6606	.600	.1215	.1480	.300	-.0459	-.0500	.600	-.0194	-.0265
.835	.7004	.7392	.639	.1154	.1899	.400	-.0500	-.0531	.800	-.0194	.0214
.949	.6330	.7617	.668	.2318	.3420	.500	-.0500	-.0368			
			.686	.3737	.4503	.600	-.0204	.0633			
			.738	.7137	.7627	.700	-.0041	.0317			
			.825	.6974	.7933	.800	-.0082	.0020			
			.949	.5452	.6575	.900	-.0163	-.0041			

$\alpha = 10^\circ; \beta = -5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0643	.3461	.000	.6014	1.4662	.000	.5626	1.5050	.000	.9394	1.5714
.682	.2032	.4533	.200	-.0878	-.0071	.100	-.1205	.0255	.200	-.1205	.0123
.699	.3849	.5524	.400	-.1072	.0766	.200	-.1113	.0153	.400	-.1011	.0541
.748	.6535	.9210	.600	-.0980	.3196	.300	-.1113	.0255	.600	-.0899	.1195
.835	.5953	1.0425	.639	.0511	.3104	.400	-.1174	.0511	.800	-.0725	.1644
.949	.6861	.9261	.668	.2685	.4268	.500	-.1266	.0899			
			.686	.4625	.5902	.600	-.1307	.2359			
			.738	.4952	1.0231	.700	-.1072	.1674			
			.825	.4043	1.0547	.800	-.0786	.1480			
			.949	.6177	.9046	.900	-.0868	.1389			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 15^\circ; \beta = -5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.0123	.4605	.000	.4840	1.6490	.000	.2900	1.7092	.000	.8230	1.7817
.682	.1777	.5493	.200	-.1041	.0511	.100	-.1654	.0909	.200	-.1623	.0868
.699	.3563	.6586	.400	-.1399	.1583	.200	-.1562	.0745	.400	-.1317	.1225
.748	.5411	.9822	.600	-.1399	.4309	.300	-.1562	.0776	.600	-.1205	.2134
.835	.6157	1.2222	.639	.0000	.4309	.400	-.1593	.1389	.800	-.1062	.2757
.949	.6484	1.1027	.668	.1909	.6034	.500	-.1593	.1848			
			.686	.3727	.7576	.600	-.1593	.3431			
			.738	.3982	1.1466	.700	-.1429	.2787			
			.825	.4380	1.2109	.800	-.1093	.2593			
			.949	.6351	1.0711	.900	-.0807	.2399			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.2759	.3054	.000	1.2541	1.2317	.000	1.2429	1.2378	.000	1.2704	1.2704
.682	.4377	.5273	.200	.0560	.0723	.100	.0987	.0987	.200	.1089	.0916
.699	.6311	.8612	.400	.0438	.0560	.200	.0753	.0886	.400	.0590	.0468
.748	1.0118	1.2459	.600	.2474	.2921	.300	.0662	.0794	.600	.0366	.0366
.835	1.0026	1.0352	.639	.2667	.2820	.400	.0601	.0662	.800	.0275	.0601
.949	.8540	.9864	.668	.4570	.4632	.500	.0529	.0468			
			.686	.6698	.7013	.600	.0468	.0560			
			.738	.9833	1.0932	.700	.0723	.0753			
			.825	.8795	.9803	.800	.0723	.0825			
			.949	.7471	.8204	.900	.0611	.0631			

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.1000	.5399	.000	.9726	1.5850	.000	.9277	1.6024	.000	.9563	1.5238
.682	.2164	.7961	.200	-.0490	.2613	.100	-.0235	.2878	.200	-.0133	.2388
.699	.3582	1.0482	.400	-.0653	.2358	.200	-.0367	.2613	.400	-.0500	.2194
.748	.5202	1.4636	.600	.0929	.5236	.300	-.0459	.2613	.600	-.0643	.2031
.835	1.0584	1.2778	.639	.0929	.4981	.400	-.0490	.2256	.800	-.0755	.2419
.949	.8992	1.0676	.668	.2256	.7318	.500	-.0592	.2102			
			.686	.3940	1.0043	.600	-.0623	.2296			
			.738	.7216	1.3411	.700	-.0367	.2552			
			.825	.9155	1.1911	.800	-.0469	.2582			
			.949	.8379	1.0145	.900	.0092	.2000			

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.0184	.6877	.000	.9468	1.7692	.000	.8530	1.7804	.000	.7918	1.7192
.682	.0990	.9203	.200	-.0888	.3673	.100	-.0694	.3867	.200	-.0561	.3347
.699	.2061	1.1346	.400	-.1041	.3387	.200	-.0786	.3673	.400	-.0867	.3224
.748	.5224	1.5896	.600	.0051	.6581	.300	-.0816	.3642	.600	-.0979	.2989
.835	.7550	1.4172	.639	.0153	.6101	.400	-.0918	.3316	.800	-.1092	.3836
.949	.4836	1.1948	.668	.1377	.8662	.500	-.0949	.3153			
			.686	.2643	1.1682	.600	-.1010	.3867			
			.738	.5285	1.5254	.700	-.0847	.3704			
			.825	.8295	1.3386	.800	-.0928	.3806			
			.949	.7101	1.1407	.900	.0704	.3092			

 $\alpha = 0^\circ; \beta = 5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.4345	.4467	.000	1.2061	1.1777	.000	1.2112	1.2000	.000	1.2223	1.2335
.682	.6112	.6264	.200	.1898	.2030	.100	.2508	.2538	.200	.2497	.2284
.699	.8071	.8660	.400	.1543	.1645	.200	.2183	.2254	.400	.1635	.1411
.748	1.2863	1.3888	.600	.4213	.4081	.300	.2030	.2061	.600	.1127	.1025
.835	1.2386	1.3086	.639	.3827	.4183	.400	.1766	.1868	.800	.1076	.1259
.949	1.0680	1.0873	.668	.5503	.6437	.500	.1645	.1452			
			.686	.8010	.8660	.600	.1797	.1350			
			.738	1.1838	1.2437	.700	.1706	.1645			
			.825	1.0934	1.1624	.800	.1685	.1645			
			.949	.9360	1.0010	.900	.1330	.1218			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 10^\circ; \beta = 5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.1412	.7018	.000	.5964	1.5243	.000	.5575	1.5468	.000	.9187	1.5908
.682	.2128	.9586	.200	-.0624	.4368	.100	.0604	.4880	.200	.1043	.4235
.699	.2803	1.2164	.400	-.0174	.3683	.200	.0184	.4624	.400	.0174	.3202
.748	.8092	1.5949	.600	.1350	.6404	.300	.0123	.4266	.600	-.0194	.2680
.835	1.2696	1.4118	.800	.1442	.6762	.400	.0020	.3652	.800	.0399	.3355
.949	.7601	1.2143	.668	.1708	.9483	.500	.0051	.3263			
			.686	.2292	1.1857	.600	.1125	.3100			
			.738	.5627	1.4691	.700	.1289	.3591			
			.825	1.1366	1.3054	.800	.1381	.3325			
			.949	.9586	1.1284	.900	.1043	.2384			

$\alpha = 15^\circ; \beta = 5^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0225	.8425	.000	.4167	1.7209	.000	.4279	1.7649	.000	.8231	1.7987
.682	.0942	1.1435	.200	-.1720	.5702	.100	-.0195	.6419	.200	.0522	.5416
.699	.1423	1.4097	.400	-.0973	.4965	.200	-.0491	.6091	.400	-.0184	.4310
.748	.2785	1.7598	.600	.0000	.8006	.300	-.0584	.5477	.600	-.0573	.3726
.835	.4085	1.5244	.800	.1331	.8170	.400	-.0584	.4699	.800	.0829	.4771
.949	.0839	1.3227	.668	.5999	1.0893	.500	-.0614	.4249			
			.686	.5743	1.3514	.600	-.0584	.4382			
			.738	.5835	1.6237	.700	.2007	.4965			
			.825	.7330	1.4363	.800	.2631	.4535			
			.949	.0450	1.2531	.900	.2744	.3307			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.6330	.5883	.000	1.1024	1.0973	.000	1.1359	1.1410	.000	1.1583	1.1685
.682	.7295	.6869	.200	.3211	.3170	.100	.4105	.4074	.200	.4024	.3597
.699	.8819	.8565	.400	.2814	.2754	.200	.3597	.3526	.400	.2764	.2428
.748	1.2680	1.3544	.600	.5913	.5558	.300	.3363	.3272	.600	.2093	.1951
.835	1.4458	1.4621	.800	.5659	.5365	.400	.3079	.2916	.800	.2235	.2428
.949	1.3036	1.2945	.668	.7102	.7041	.500	.2855	.2398			
			.686	.8911	.9175	.600	.3912	.3434			
			.738	1.3392	1.3514	.700	.3008	.2591			
			.825	1.2843	1.3473	.800	.2875	.2560			
			.949	1.1583	1.1644	.900	.2256	.1880			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.5053	.8486	.000	.6836	1.4161	.000	.6948	1.5047	.000	.7559	1.5322
.682	.9933	1.0249	.200	.0438	.5899	.100	.1182	.6999	.200	.1793	.5827
.699	1.4619	1.1573	.400	.0499	.5185	.200	.0947	.6347	.400	.1090	.4309
.748	1.2979	1.4395	.600	.5094	.8028	.300	.0917	.5705	.600	.0611	.3606
.835	.7936	1.4884	.800	.4829	.7804	.400	.0856	.4890	.800	.2404	.4248
.949	.9546	1.3427	.668	.8680	1.1104	.500	.0856	.4279			
			.686	1.3722	1.3712	.600	.2730	.4635			
			.738	1.6656	1.5587	.700	.3280	.4798			
			.825	1.0809	1.4089	.800	.3953	.4055			
			.949	1.0870	1.2592	.900	.2068	.2863			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.3105	.9908	.000	.7620	1.6609	.000	.5516	1.7273	.000	.5628	1.7600
.682	.6762	1.1420	.200	-.0296	.7477	.100	.0255	.8938	.200	.0960	.7252
.699	.9581	1.3054	.400	-.0327	.6476	.200	.0123	.8131	.400	.0480	.5465
.748	.3197	1.6251	.600	.2972	.9326	.300	.0123	.7028	.600	.1604	.4658
.835	.0766	1.5843	.800	.4464	.9030	.400	.0123	.5986	.800	.3463	.5465
.949	.3238	1.4413	.668	1.2431	1.2033	.500	.1226	.5403			
			.686	1.5577	1.5036	.600	.2298	.6180			
			.738	.2880	1.7038	.700	.4821	.6118			
			.825	.0286	1.5128	.800	.2257	.5117			
			.949	.1747	1.3708	.900	.0766	.3687			



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TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.554		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1508	-.1376	.000	1.0343	.1794	.000	1.0904	.9345	.000	.1743	.1681
.682	-.1345	-.1182	.200	.2120	-.2018	.100	-.1855	-.1987	.200	-.1743	-.1855
.699	-.1345	-.1141	.400	-.1569	-.1467	.200	-.1763	-.1895	.400	-.1580	-.1702
.748	-.1274	-.1039	.600	-.1437	-.1345	.300	-.1702	-.1763	.600	-.1722	-.1732
.835	-.1274	-.0988	.639	-.1508	-.1406	.400	-.1824	-.1794	.800	-.1773	-.1702
.949	-.1345	-.0795	.668	-.1376	-.1182	.500	-.1732	-.1437			
			.686	-.1376	-.1213	.600	-.1539	-.1152			
			.738	-.1376	-.1182	.700	-.1315	-.1111			
			.825	-.1467	-.1009	.800	-.1101	-.1152			
			.949	-.1467	-.0866	.900	-.1101	-.1152			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1671	-.0540	.000	.6736	.2130	.000	.6012	1.1729	.000	.2130	.2069
.682	-.1539	-.0255	.200	-.1213	-.2120	.100	-.2018	-.1702	.200	-.2109	-.1437
.699	-.1539	-.0112	.400	-.1732	-.0662	.200	-.1957	-.1630	.400	-.1865	-.1508
.748	-.1406	-.0010	.600	-.1865	-.0540	.300	-.1987	-.1539	.600	-.1692	-.2120
.835	-.1345	-.0082	.639	-.1926	-.0346	.400	-.2018	-.1284	.800	-.1692	-.2120
.949	-.1345	.0041	.668	-.1824	-.0082	.500	-.2120	-.0958			
			.686	-.1824	-.0010	.600	-.2120	-.0438			
			.738	-.1824	-.0010	.700	-.1957	-.0438			
			.825	-.1763	.0163	.800	-.1916	-.0825			
			.949	-.1569	.0132	.900	-.1997	-.0988			

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1794	.0397	.000	.7623	.2741	.000	.4627	1.3115	.000	.2741	.2792
.682	-.1732	.0683	.200	-.1406	-.2058	.100	-.2089	-.1376	.200	-.2283	-.1121
.699	-.1732	.0825	.400	-.1895	.0010	.200	-.2058	-.1213	.400	-.2058	-.1182
.748	-.1671	.0897	.600	-.1865	.0499	.300	-.2089	-.1090	.600	-.1946	-.2120
.835	-.1508	.0856	.639	-.1957	.0530	.400	-.2150	-.0825	.800	-.1946	-.1865
.949	-.0988	.0887	.668	-.1895	.0999	.500	-.2181	-.0897			
			.686	-.1895	.1101	.600	-.2283	-.0214			
			.738	-.1926	.1029	.700	-.2181	.0112			
			.825	-.1865	.1101	.800	-.2058	-.0469			
			.949	-.1569	.1101	.900	-.2201	-.0601			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.0448	-.0255	.000	1.2473	.1284	.000	1.2412	1.1699	.000	.1284	.1284
.682	-.0346	-.0041	.200	-.0061	.0234	.100	-.0571	-.0632	.200	-.0285	-.0571
.699	-.0346	-.0112	.400	-.0183	-.0092	.200	-.0153	-.0122	.400	-.0153	.0041
.748	-.0346	-.0041	.600	-.0285	.0122	.300	-.0153	-.0122	.600	-.0010	.0041
.835	-.0346	-.0061	.639	-.0479	-.0285	.400	-.0214	-.0153	.800	-.0041	-.0061
.949	-.0214	-.0092	.668	-.0285	.0031	.500	-.0285	-.0183			
			.686	-.0377	-.0143	.600	-.0285	-.0061			
			.738	-.0377	-.0183	.700	-.0346	-.0061			
			.825	-.0510	-.0214	.800	-.0428	-.0316			
			.949	-.0377	-.0041	.900	-.0459	-.0408			

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1182	.0999	.000	.9589	.1508	.000	.9650	1.4858	.000	.1457	.1457
.682	-.1090	.1202	.200	-.0927	.1549	.100	-.1253	.0581	.200	-.1131	.0511
.699	-.1121	.1172	.400	-.1060	.1549	.200	-.1060	.1457	.400	-.1192	.1743
.748	-.1152	.1141	.600	-.1090	.1223	.300	-.1060	.1457	.600	-.1050	.1712
.835	-.0285	.1101	.639	-.1223	.1101	.400	-.1090	.1416	.800	-.1050	.1457
.949	-.0031	.1070	.668	-.0999	.1315	.500	-.1121	.1580			
			.686	-.1060	.1172	.600	-.1152	.1651			
			.738	-.1090	.1172	.700	-.1223	.1488			
			.825	-.1152	.1172	.800	-.1243	.0938			
			.949	.0102	.1172	.900	-.1274	.0968			

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TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a) M = 2.30 - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.1539	.1865	.000	.9426	.1671	.000	.8652	1.6458	.000	.1620	.1620
.682	-.1447	.2099	.200	-.1345	.2374	.100	-.1447	.1416	.200	-.1386	.1355
.699	-.1478	.2099	.400	-.1315	.2415	.200	-.1478	.2415	.400	-.1437	.2700
.748	-.1508	.2099	.600	-.1345	.2150	.300	-.1345	.2446	.600	-.1416	.2700
.835	-.1029	.2120	.639	-.1478	.2028	.400	-.1386	.2568	.800	-.1355	.2374
.949	-.0418	.2058	.668	-.1315	.2374	.500	-.1386	.2670			
			.686	-.1386	.2232	.600	-.1416	.2568			
			.738	-.1447	.2171	.700	-.1447	.2476			
			.825	-.1253	.2130	.800	-.1467	.1702			
			.949	-.0224	.2201	.900	-.1549	.1804			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	.1325	.1264	.000	1.0985	.2364	.000	1.1098	1.0934	.000	.2364	.2364
.682	.1549	.1651	.200	.2965	.3159	.100	.1906	.1416	.200	.1895	.1773
.699	.1610	.1824	.400	.1743	.1681	.200	.2293	.2191	.400	.1559	.1355
.748	.1712	.1957	.600	.1416	.1264	.300	.1997	.1997	.600	.1111	.0938
.835	.1773	.1773	.639	.1070	.1029	.400	.1804	.1681	.800	.0805	.0459
.949	.1457	.1264	.668	.1416	.1437	.500	.1681	.1325			
			.686	.1325	.1264	.600	.1457	.1070			
			.738	.1355	.1610	.700	.1101	.0774			
			.825	.1386	.1580	.800	.0520	.0163			
			.949	.1294	.1131	.900	.0744	.0489			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	.0815	.2588	.000	.6899	.2242	.000	.7510	1.4501	.000	.2242	.2130
.682	.0978	.2782	.200	.0591	.5258	.100	-.0183	.4392	.200	.0357	.4229
.699	.0978	.2782	.400	-.0214	.3781	.200	.0041	.4647	.400	.0132	.3169
.748	.1325	.2813	.600	.1233	.3037	.300	.0010	.4229	.600	-.0234	.2527
.835	.1039	.2711	.639	.0907	.2680	.400	-.0092	.3618	.800	.0265	.1712
.949	.0489	.2140	.668	.1233	.2782	.500	-.0122	.3098			
			.686	.1101	.2507	.600	-.0122	.2650			
			.738	.1233	.2334	.700	.0876	.2201			
			.825	.1294	.2466	.800	.0744	.1294			
			.949	.0754	.2160	.900	.1050	.1264			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0214	.3485	.000	.7765	.1977	.000	.5921	1.6611	.000	.1916	.1916
.682	-.0214	.3658	.200	-.0214	.6644	.100	-.0866	.6298	.200	-.0316	.5554
.699	-.0448	.3801	.400	-.0836	.5034	.200	-.0642	.6135	.400	-.0459	.4260
.748	-.0866	.3903	.600	.0683	.3974	.300	-.0642	.5523	.600	-.0092	.3526
.835	-.1090	.3526	.639	.0397	.3485	.400	-.0703	.4677	.800	.0948	.2619
.949	-.1376	.2711	.668	.0459	.3658	.500	-.0092	.4097			
			.686	.0326	.3353	.600	.0683	.3587			
			.738	-.0092	.3281	.700	.0938	.3098			
			.825	-.0764	.3455	.800	.0836	.2069			
			.949	-.1253	.2731	.900	.0581	.2069			

$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0958	-.0836	.000	1.0496	.1702	.000	1.1179	1.0720	.000	.1702	.1641
.682	-.0764	-.0632	.200	-.1386	-.1355	.100	.0255	.0082	.200	.0051	-.0173
.699	-.0703	-.0601	.400	-.1060	-.0866	.200	-.0836	-.0866	.400	-.0204	-.0764
.748	-.0734	-.0601	.600	-.0866	-.0673	.300	-.1131	-.1192	.600	-.0540	-.0897
.835	-.0764	-.0571	.639	-.0999	-.0795	.400	-.1162	-.1223	.800	-.0540	-.0469
.949	-.0795	-.0469	.668	-.0836	-.0632	.500	-.1090	-.1029			
			.686	-.0897	-.0601	.600	-.1029	-.0764			
			.738	-.0836	-.0499	.700	-.0734	-.0469			
			.825	-.0734	-.0428	.800	-.0489	-.0336			
			.949	-.0703	-.0428	.900	-.0510	-.0377			



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TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a)  $M = 2.30$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1325	-.0082	.000	.6787	.2181	.000	.7510	1.4195	.000	.2130	.2130
.682	-.1192	.0092	.200	-.1029	-.1488	.100	-.0764	.1223	.200	-.0836	.0673
.699	-.1192	.0163	.400	-.1131	-.1101	.200	-.1355	-.0214	.400	-.1253	-.0020
.748	-.1060	.0234	.600	-.1223	-.0346	.300	-.1294	-.0734	.600	-.1253	-.0408
.835	-.0968	.0245	.639	-.1427	-.0479	.400	-.1294	-.0968	.800	-.1141	-.0316
.949	-.0764	.0245	.668	-.1264	-.0397	.500	-.1355	-.0897			
			.686	-.1294	-.0459	.600	-.1355	-.0346			
			.738	-.1294	-.0082	.700	-.1457	-.0051			
			.825	-.1131	.0163	.800	-.1488	.0020			
			.949	-.0020	.0306	.900	-.1427	.0143			

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1559	.0510	.000	.7684	.2741	.000	.6002	1.6101	.000	.2690	.2690
.682	-.1427	.0754	.200	-.1325	-.1192	.100	-.1060	.2109	.200	-.1284	.1518
.699	-.1427	.0887	.400	-.1396	-.0764	.200	-.1559	.0479	.400	-.1569	.0673
.748	-.1325	.0958	.600	-.1488	.0112	.300	-.1518	-.0245	.600	-.1600	.0183
.835	-.1192	.1131	.639	-.1590	.0051	.400	-.1559	-.0438	.800	-.1600	.0112
.949	-.0601	.1060	.668	-.1457	.0265	.500	-.1620	-.0306			
			.686	-.1488	.0051	.600	-.1681	-.0275			
			.738	-.1518	.0683	.700	-.1783	-.0112			
			.825	-.1427	.0713	.800	-.1743	.0479			
			.949	-.0938	.0785	.900	-.1906	.1101			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	.0428	.0622	.000	1.2494	.1243	.000	1.2606	1.2432	.000	.1182	.1182
.682	.0560	.0815	.200	.1019	.1304	.100	.2843	.2680	.200	.3027	.2415
.699	.0489	.0754	.400	.0887	.1111	.200	.2120	.2191	.400	.1753	.1345
.748	.0489	.0785	.600	.0591	.0887	.300	.1865	.1926	.600	.1213	.0948
.835	.0367	.0591	.639	.0326	.0693	.400	.1630	.1600	.800	.0927	.0724
.949	.0367	.0591	.668	.0459	.0713	.500	.1539	.1345			
			.686	.0326	.0469	.600	.1345	.1141			
			.738	.0326	.0571	.700	.1111	.1050			
			.825	.0163	.0510	.800	.1039	.0887			
			.949	.0163	.0642	.900	.0815	.0724			

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.0611	.2130	.000	.9671	.1549	.000	.9783	1.5663	.000	.1549	.1498
.682	-.0510	.2222	.200	-.0183	.3343	.100	.1253	.4841	.200	.1396	.1188
.699	-.0581	.2150	.400	-.0387	.3139	.200	.0724	.4382	.400	.0520	.3139
.748	-.0611	.2048	.600	-.0673	.2486	.300	.0428	.3893	.600	.0132	.2680
.835	-.0061	.1804	.639	-.0836	.2099	.400	.0265	.3343	.800	-.0071	.2395
.949	.0601	.1610	.668	-.0611	.2079	.500	.0234	.3016			
			.686	-.0713	.1804	.600	.0102	.2751			
			.738	-.0713	.1875	.700	-.0020	.2650			
			.825	-.0836	.1732	.800	-.0071	.2354			
			.949	.0856	.1732	.900	-.0041	.2099			

 $\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1131	.2955	.000	.9508	.1661	.000	.8611	1.7171	.000	.1661	.1610
.682	-.1029	.3057	.200	-.0611	.4555	.100	.0703	.6125	.200	.0693	.5146
.699	-.1070	.2986	.400	-.0968	.4229	.200	.0336	.5605	.400	.0132	.4097
.748	-.1192	.2925	.600	-.1233	.3343	.300	.0041	.4851	.600	-.0214	.3638
.835	-.1029	.2660	.639	-.1355	.2925	.400	-.0153	.4362	.800	-.0438	.3343
.949	.0143	.2497	.668	-.1192	.2925	.500	-.0285	.4005			
			.686	-.1325	.2609	.600	-.0408	.3771			
			.738	-.1488	.2639	.700	-.0510	.3638			
			.825	-.1233	.2639	.800	-.0499	.3312			
			.949	-.0703	.2711	.900	.2160	.3016			

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TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(a) M = 2.30 - Concluded

$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.3016	.2782	.000	1.1138	.2191	.000	1.1250	1.1362	.000	.1967	.2079
.682	.3241	.3179	.200	.3964	.3903	.100	.6756	.6359	.200	.6023	.5411
.699	.3373	.3292	.400	.3801	.3740	.200	.5768	.5574	.400	.4290	.3740
.748	.3343	.3292	.600	.3047	.2782	.300	.5381	.5085	.600	.3414	.2945
.835	.3047	.2884	.639	.2680	.2486	.400	.4953	.4453	.800	.2904	.2425
.949	.2558	.2456	.668	.3016	.2588	.500	.4555	.3832			
			.686	.2813	.2374	.600	.3964	.3444			
			.738	.3271	.3393	.700	.3536	.3047			
			.825	.3343	.3567	.800	.3495	.3016			
			.949	.2976	.2864	.900	.3495	.3179			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.2058	.4127	.000	.6838	.1977	.000	.6216	1.4277	.000	.1865	.1926
.682	.2425	.4056	.200	.0713	.7245	.100	.2721	1.0068	.200	.3709	.7837
.699	.2425	.4025	.400	.1172	.6165	.200	.2650	.8794	.400	.2507	.5809
.748	.2588	.4168	.600	.3179	.4657	.300	.2486	.7480	.600	.1885	.4953
.835	.2486	.3903	.639	.2751	.4127	.400	.2425	.6430	.800	.3332	.3934
.949	.2089	.3444	.668	.2945	.3985	.500	.2385	.5972			
			.686	.2884	.3638	.600	.3241	.5411			
			.738	.3210	.3811	.700	.4229	.4749			
			.825	.3108	.4199	.800	.4759	.4158			
			.949	.2456	.3883	.900	.4270	.4331			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.0652	.5014	.000	.7765	.2028	.000	.4667	1.6264	.000	.2028	.1967
.682	.0815	.5085	.200	-.0041	.9253	.100	.1376	1.2269	.200	.2588	.9314
.699	.0652	.5228	.400	.0255	.7704	.200	.1406	1.0405	.400	.1794	.7082
.748	.0520	.5187	.600	.1467	.5513	.300	.1498	.8723	.600	.3699	.5931
.835	.0683	.4688	.639	.1039	.4881	.400	.1406	.7877	.800	.3893	.4851
.949	.0418	.3964	.668	.1172	.4769	.500	.3607	.7215			
			.686	.1039	.4525	.600	.4718	.6359			
			.738	.0448	.4769	.700	.4953	.5707			
			.825	-.0734	.5442	.800	.4351	.5085			
			.949	-.1060	.4382	.900	.3811	.5146			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b)  $M = 2.88$ 

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0911	-.0723	.000	.8602	.9513	.000	1.0810	.9780	.000	1.1829	1.0919
.682	-.0782	-.0634	.200	-.0940	-.0851	.100	-.0911	-.0881	.200	-.0802	-.0881
.699	-.0782	-.0564	.400	-.0851	-.0752	.200	-.0970	-.0911	.400	-.0663	-.0752
.748	-.0752	-.0495	.600	-.0822	-.0822	.300	-.0970	-.0970	.600	-.0663	-.0723
.835	-.0723	-.0505	.639	-.0911	-.0881	.400	-.0940	-.0940	.800	-.0614	-.0604
.949	-.0752	-.0505	.668	-.0822	-.0762	.500	-.0881	-.0782			
			.686	-.0782	-.0792	.600	-.0782	-.0535			
			.738	-.0822	-.0832	.700	-.0752	-.0505			
			.825	-.0782	-.0762	.800	-.0584	-.0505			
			.949	-.0782	-.0634	.900	-.0554	-.0445			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1039	-.0317	.000	.4780	1.4727	.000	.7146	1.6340	.000	.7314	1.7637
.682	-.0970	-.0139	.200	-.0851	-.0663	.100	-.1099	-.0228	.200	-.1148	-.0198
.699	-.0940	-.0109	.400	-.0970	-.0851	.200	-.1099	-.0346	.400	-.1178	-.0010
.748	-.0911	-.0079	.600	-.1039	-.0317	.300	-.1039	-.0346	.600	-.1069	-.0069
.835	-.1010	-.0040	.639	-.1099	-.0376	.400	-.1039	-.0475	.800	-.1039	-.0633
.949	-.0970	.0059	.668	-.1010	-.0178	.500	-.1069	-.0416			
			.686	-.1039	-.0109	.600	-.1188	-.0376			
			.738	-.1069	-.0040	.700	-.1257	-.0445			
			.825	-.1128	.0119	.800	-.1128	-.0445			
			.949	-.1128	.0218	.900	-.1287	-.0376			

 $\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.1376	.1089	.000	.0861	2.1624	.000	.1782	2.3079	.000	.2426	2.4376
.682	-.1347	.1307	.200	-.1446	.0337	.100	-.1535	.1208	.200	-.1584	.1178
.699	-.1317	.1376	.400	-.1505	-.0099	.200	-.1594	.0990	.400	-.1564	.1396
.748	-.1257	.1545	.600	-.1475	.1050	.300	-.1564	.0832	.600	-.1455	.1307
.835	-.1287	.1584	.639	-.1406	.0871	.400	-.1564	.0802	.800	-.1396	-.0257
.949	-.1257	.1673	.668	-.1446	.1307	.500	-.1535	.0802			
			.686	-.1475	.1475	.600	-.1535	.0743			
			.738	-.1446	.1574	.700	-.1505	.0644			
			.825	-.1347	.1743	.800	-.1257	.0525			
			.949	-.1317	.1842	.900	-.1475	.0465			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.0178	.0307	.000	1.3109	1.2673	.000	1.2733	1.2238	.000	1.2782	1.2564
.682	.0277	.0525	.200	.0584	.0614	.100	.0960	.0743	.200	.0802	.0644
.699	.0248	.0455	.400	.0525	.0525	.200	.0871	.0772	.400	.0693	.0554
.748	.0248	.0455	.600	.0426	.0554	.300	.0743	.0683	.600	.0584	.0426
.835	.0178	.0337	.639	.0307	.0396	.400	.0713	.0713	.800	.0446	.0366
.949	.0020	.0277	.668	.0396	.0624	.500	.0584	.0584			
			.686	.0366	.0525	.600	.0584	.0525			
			.738	.0307	.0525	.700	.0495	.0495			
			.825	.0307	.0525	.800	.0505	.0396			
			.949	.0208	.0426	.900	.0396	.0337			

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0228	.0901	.000	1.1322	1.4499	.000	1.1748	1.4232	.000	1.1698	1.4667
.682	-.0099	.1059	.200	.0119	.1237	.100	.0495	.1118	.200	.0643	.0990
.699	-.0158	.0990	.400	-.0010	.1237	.200	.0337	.1148	.400	.0287	.1049
.748	-.0158	.1029	.600	-.0040	.1207	.300	.0247	.1277	.600	.0069	.1049
.835	-.0228	.0871	.639	-.0198	.1019	.400	.0208	.1336	.800	-.0040	.0990
.949	-.0346	.0772	.668	-.0040	.1188	.500	.0148	.1148			
			.686	-.0069	.1089	.600	.0119	.1118			
			.738	-.0099	.1059	.700	.0020	.1118			
			.825	-.0129	.1029	.800	.0040	.1019			
			.949	-.0158	.0930	.900	-.0069	.0930			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b) M = 2.88 - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0564	.1623	.000	.9711	1.6442	.000	.9384	1.6660	.000	1.0295	1.7036
.682	-.0505	.1851	.200	-.0188	.1841	.100	.0059	.1623	.200	.0148	.1406
.699	-.0475	.1782	.400	-.0346	.2000	.200	-.0099	.1623	.400	-.0119	.1465
.748	-.0535	.1782	.600	-.0445	.1960	.300	-.0099	.1812	.600	-.0307	.1742
.835	-.0594	.1623	.639	-.0564	.1742	.400	-.0228	.1901	.800	-.0396	.1713
.949	-.0693	.1465	.668	-.0445	.1950	.500	-.0257	.1812			
			.686	-.0475	.1782	.600	-.0317	.1871			
			.738	-.0505	.1752	.700	-.0346	.1841			
			.825	-.0475	.1752	.800	-.0337	.1812			
			.949	-.0535	.1713	.900	-.0475	.1683			

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0910	.2523	.000	.7867	1.9187	.000	.8460	1.9513	.000	.8243	1.9998
.682	-.0782	.2741	.200	-.0534	.2830	.100	-.0376	.2424	.200	-.0257	.2078
.699	-.0851	.2672	.400	-.0693	.2959	.200	-.0505	.2395	.400	-.0505	.2266
.748	-.0851	.2672	.600	-.0782	.2889	.300	-.0534	.2612	.600	-.0604	.2701
.835	-.0851	.2454	.639	-.0881	.2642	.400	-.0534	.2701	.800	-.0693	.2672
.949	-.0475	.2395	.668	-.0782	.2840	.500	-.0564	.2741			
			.686	-.0821	.2701	.600	-.0604	.2830			
			.738	-.0851	.2701	.700	-.0663	.2860			
			.825	-.0881	.2701	.800	-.0663	.2771			
			.949	-.0317	.2642	.900	-.0772	.2672			

$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.1189	.3655	.000	.2971	2.2276	.000	.3724	2.2761	.000	.6745	2.3197
.682	-.1129	.3704	.200	-.1288	.4150	.100	-.1228	.3496	.200	-.0822	.2962
.699	-.1099	.3665	.400	-.1317	.4279	.200	-.1288	.3625	.400	-.0961	.3437
.748	-.1099	.3665	.600	-.1258	.4031	.300	-.1317	.3903	.600	-.1020	.3873
.835	-.1099	.3526	.639	-.1258	.3714	.400	-.1317	.3903	.800	-.1040	.3813
.949	-.0693	.3467	.668	-.1099	.3833	.500	-.1347	.3962			
			.686	-.1129	.3734	.600	-.1347	.4031			
			.738	-.1099	.3764	.700	-.1377	.4002			
			.825	-.1099	.3734	.800	-.1149	.3873			
			.949	-.0634	.3665	.900	-.0555	.3685			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	.1930	.1841	.000	.9246	1.0226	.000	1.1305	1.1087	.000	1.1790	1.1631
.682	.2059	.1960	.200	.2811	.2841	.100	.3623	.3465	.200	.3742	.3366
.699	.2029	.1960	.400	.2465	.2495	.200	.3148	.3148	.400	.2871	.2495
.748	.2029	.1960	.600	.2247	.2277	.300	.3088	.2999	.600	.2267	.1960
.835	.2089	.1960	.639	.1930	.2000	.400	.2841	.2772	.800	.1920	.1623
.949	.2029	.1960	.668	.2089	.2158	.500	.2772	.2554			
			.686	.2059	.2029	.600	.2653	.2306			
			.738	.2059	.1990	.700	.2366	.2089			
			.825	.2059	.1861	.800	.2217	.1772			
			.949	.2148	.2089	.900	.1970	.1554			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	.0525	.3744	.000	.5240	1.6454	.000	.7122	1.7484	.000	.7231	1.8128
.682	.0773	.3853	.200	.0654	.5369	.100	.1367	.6181	.200	.1753	.5656
.699	.0743	.3784	.400	.0684	.4775	.200	.1060	.5745	.400	.1317	.4438
.748	.0872	.3586	.600	.1000	.4368	.300	.1030	.5527	.600	.0882	.3843
.835	.0931	.3338	.639	.0872	.4002	.400	.0931	.5032	.800	.0664	.3279
.949	.0654	.3249	.668	.1218	.3982	.500	.0872	.4468			
			.686	.1179	.3853	.600	.0901	.4180			
			.738	.1337	.3754	.700	.1149	.3903			
			.825	.1526	.3487	.800	.1704	.3497			
			.949	.1466	.3219	.900	.1892	.3180			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b)  $M = 2.88$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 20^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0218	.6350	.000	.0862	2.3031	.000	.0862	2.4269	.000	.2209	2.4804
.682	-.0030	.6746	.200	-.1218	.8886	.100	-.0317	.9896	.200	.0129	.8796
.699	.0000	.6746	.400	-.0624	.7984	.200	-.0317	.9480	.400	-.0119	.7291
.748	-.0158	.6350	.600	.0059	.6885	.300	-.0436	.8925	.600	.1238	.6478
.835	-.0376	.6013	.639	-.0099	.6231	.400	-.0218	.7826	.800	.1892	.6043
.949	-.0624	.5636	.668	.0158	.6815	.500	.0941	.7202			
			.686	.0158	.6578	.600	.0941	.6795			
			.738	.0158	.6419	.700	.1000	.6766			
			.825	-.0129	.6082	.800	.1238	.6102			
			.949	-.0406	.6112	.900	.1020	.5508			

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.0169	.0169	.000	.8647	.9241	.000	1.0749	.9727	.000	1.1939	1.0967
.682	.1021	.3223	.200	-.0962	-.0863	.100	-.0962	-.0902	.200	-.0813	-.0902
.699	.1428	.2985	.400	-.0863	-.0773	.200	-.0992	-.0992	.400	-.0674	-.0773
.748	.2935	.3619	.600	-.0238	-.0238	.300	-.0962	-.0992	.600	-.0704	-.0674
.835	.3808	.4184	.639	-.0050	-.0079	.400	-.0962	-.0992	.800	-.0565	-.0208
.949	.3937	.1805	.668	.0456	.0506	.500	-.0902	-.0773			
			.686	.0863	.1031	.600	-.0297	-.0020			
			.738	.1805	.1567	.700	-.0486	-.0149			
			.825	.2647	.2757	.800	-.0595	-.0337			
			.949	.3471	.2955	.900	-.0645	-.0555			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	-.0208	.0645	.000	.4819	1.4695	.000	.7139	1.6311	.000	.7348	1.7610
.682	.1517	.1596	.200	-.0863	-.0674	.100	-.1091	-.0208	.200	-.1170	-.0178
.699	.2429	.3153	.400	-.0962	-.0932	.200	-.1091	-.0367	.400	-.1140	-.0020
.748	.2866	.6336	.600	-.1051	.0645	.300	-.1091	-.0456	.600	-.1061	-.0050
.835	.3094	.6009	.639	-.0456	.0674	.400	-.1120	-.0486	.800	-.1031	-.0615
.949	.3312	.5503	.668	.1616	.1269	.500	-.1150	-.0397			
			.686	.2806	.1824	.600	-.1210	.0516			
			.738	.2905	.3024	.700	-.1180	.0357			
			.825	.1924	.5345	.800	-.1001	-.0109			
			.949	.1358	.5672	.900	-.1200	-.0297			

 $\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	-.1090	.3429	.000	.0872	2.1584	.000	.1734	2.3149	.000	.2497	2.4339
.682	.0040	.6055	.200	-.1427	.0357	.100	-.1556	.1239	.200	-.1576	.1209
.699	.0644	.6055	.400	-.1467	-.0149	.200	-.1556	.0981	.400	-.1526	.1397
.748	.0604	.6719	.600	-.1338	.2180	.300	-.1556	.0832	.600	-.1417	.1298
.835	.0793	1.1030	.639	-.1179	.2775	.400	-.1526	.0832	.800	-.1308	.0416
.949	.1546	1.0713	.668	-.0714	.3340	.500	-.1526	.0793			
			.686	-.0208	.4033	.600	-.1467	.2804			
			.738	.0515	.6877	.700	-.1427	.1586			
			.825	.0228	.9722	.800	-.1199	.0981			
			.949	.0644	1.0455	.900	-.1278	.0922			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$ 

.647	.2461	.2619	.000	1.3047	1.2610	.000	1.2610	1.2124	.000	1.2720	1.2452
.682	.4038	.5556	.200	.0575	.0546	.100	.0893	.0734	.200	.0804	.0675
.699	.5824	.8572	.400	.0456	.0486	.200	.0764	.0704	.400	.0724	.0486
.748	1.0041	1.3057	.600	.1707	.1707	.300	.0704	.0645	.600	.0585	.0387
.835	.9664	.9971	.639	.2461	.2490	.400	.0675	.0645	.800	.0476	.0417
.949	.8433	.9624	.668	.4504	.4663	.500	.0575	.0546			
			.686	.6767	.7253	.600	.0575	.0456			
			.738	1.0190	1.1628	.700	.0833	.0734			
			.825	.8870	.9941	.800	.0744	.0605			
			.949	.7590	.8116	.900	.0615	.0645			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b) M = 2.88 - Continued

$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0893	.4931	.000	.9793	1.6381	.000	.9356	1.6698	.000	1.0328	1.7025
.682	.1826	.7580	.200	-.0208	.1865	.100	.0069	.1607	.200	.0149	.1389
.699	.3215	1.0805	.400	-.0337	.1984	.200	-.0089	.1607	.400	-.0129	.1449
.748	.6538	1.6043	.600	.0069	.4058	.300	-.0119	.1766	.600	-.0317	.1736
.785	.7947	1.4753	.639	.0893	.4872	.400	-.0179	.1925	.800	-.0397	.2014
.835	.8890	1.2184	.668	.2361	.8175	.500	-.0238	.1796			
.949			.686	.4187	1.1271	.600	-.0308	.1865			
			.738	.6886	1.5021	.700	-.0179	.2302			
			.825	.5784	1.3722	.800	-.0238	.2173			
			.949	.9138	1.1569	.900	-.0238	.2014			

$\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0496	.8607	.000	.3034	2.2201	.000	.3738	2.2737	.000	.6653	2.3064
.682	.0387	1.2424	.200	-.1279	.4145	.100	-.1180	.3550	.200	-.0813	.2985
.699	.0387	1.2424	.400	-.1309	.4274	.200	-.1249	.3619	.400	-.0952	.3520
.748	.0952	2.0387	.600	-.0873	.7913	.300	-.1279	.3927	.600	-.1001	.3897
.835	.1140	1.9385	.639	-.0714	.7972	.400	-.1279	.3897	.800	-.1031	.4432
.899	.0139	1.6034	.668	-.0496	1.1423	.500	-.1309	.3996			
			.686	-.0337	1.5042	.600	-.0873	.4591			
			.738	.0387	1.9326	.700	-.0992	.4650			
			.825	.1735	1.7799	.800	-.1031	.4650			
			.949	-.0496	1.5439	.900	-.0734	.4333			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.5705	.5447	.000	.9009	1.0309	.000	1.1112	1.0953	.000	1.1717	1.1608
.682	.6955	.7431	.200	.2838	.2867	.100	.3562	.3562	.200	.3820	.3403
.699	.8652	.9793	.400	.2461	.2530	.200	.3155	.3155	.400	.2947	.2490
.748	1.3781	1.6539	.600	.5318	.5258	.300	.3096	.2996	.600	.2371	.1964
.835	1.7204	1.6916	.639	.5100	.5417	.400	.2867	.2778	.800	.2232	.2054
.899	1.5190	1.5160	.668	.6925	.7898	.500	.2778	.2560			
			.686	.9406	1.0527	.600	.3125	.2302			
			.738	1.4218	1.4714	.700	.3026	.2679			
			.825	1.4873	1.4982	.800	.2699	.2371			
			.949	1.2610	1.3146	.900	.2312	.1964			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.3342	.8835	.000	.5245	1.6311	.000	.7030	1.7442	.000	.7189	1.7987
.682	.7645	1.2286	.200	.0645	.5384	.100	.1398	.6168	.200	.1815	.5692
.699	1.4963	1.5112	.400	.0704	.4750	.200	.1081	.5761	.400	.1378	.4472
.748	.8458	1.9792	.600	.3718	.7675	.300	.1021	.5543	.600	.0912	.3808
.835	.4601	1.9484	.639	.3748	.8528	.400	.0952	.5037	.800	.1755	.4155
.899	.8904	1.7412	.668	.7705	1.2583	.500	.0892	.4442			
			.686	1.3674	1.6500	.600	.1458	.4224			
			.738	1.6877	1.9326	.700	.2241	.4908			
			.825	.5632	1.7928	.800	.3312	.4472			
			.949	.7298	1.6004	.900	.1646	.3431			

$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0793	1.3138	.000	.0823	2.3004	.000	.0982	2.4303	.000	.2221	2.4839
.682	.0734	1.6500	.200	-.1051	.8964	.100	-.0238	.9995	.200	.0169	.8835
.699	.0892	1.9326	.400	-.0297	.8052	.200	-.0238	.9588	.400	-.0050	.7328
.748	.1021	2.3173	.600	.0645	1.2256	.300	-.0268	.8934	.600	.1150	.6485
.835	.1547	2.3689	.639	.0922	1.2414	.400	-.0109	.7863	.800	.1616	.7645
.899	.4601	2.0645	.668	.1547	1.6539	.500	.0734	.7238			
			.686	.1547	1.9921	.600	.0764	.7238			
			.738	.2271	2.2608	.700	.0833	.8339			
			.825	.4065	2.1616	.800	.0992	.7516			
			.949	.4789	1.9256	.900	.0882	.6108			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b)  $M = 2.88$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1128	-.1000	.000	.9185	.1445	.000	1.0373	.8334	.000	.1445	.1445
.682	-.1069	-.0851	.200	-.1188	-.1099	.100	-.1287	-.1287	.200	-.1148	-.1287
.699	-.1039	-.0822	.400	-.1158	-.1128	.200	-.1287	-.1287	.400	-.1099	-.1188
.748	-.1000	-.0782	.600	-.1099	-.1069	.300	-.1217	-.1287	.600	-.1118	-.1188
.835	-.0911	-.0782	.639	-.1158	-.1099	.400	-.1257	-.1257	.800	-.1178	-.1217
.949	-.0911	-.0693	.668	-.1069	-.0950	.500	-.1257	-.1188			
			.686	-.1069	-.0990	.600	-.1128	-.0911			
			.738	-.1099	-.0990	.700	-.1039	-.0782			
			.825	-.1128	-.1019	.800	-.0822	-.0812			
			.949	-.1128	-.0921	.900	-.0792	-.0911			

 $\alpha = 10^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1099	-.0505	.000	.4840	.1396	.000	.6444	1.3867	.000	.1445	.1445
.682	-.1039	-.0287	.200	-.0594	-.1069	.100	-.1376	-.0940	.200	-.1425	-.0822
.699	-.1069	-.0218	.400	-.1158	-.1316	.200	-.1376	-.0940	.400	-.1396	-.0663
.748	-.1099	-.0119	.600	-.1188	-.0346	.300	-.1316	-.0881	.600	-.1257	-.1000
.835	-.1099	-.0069	.639	-.1227	-.0445	.400	-.1316	-.0752	.800	-.1257	-.1316
.949	-.1039	-.0010	.668	-.1158	-.0148	.500	-.1406	-.0723			
			.686	-.1188	-.0119	.600	-.1406	-.0693			
			.738	-.1227	.0010	.700	-.1346	-.0693			
			.825	-.1257	.0148	.800	-.1227	-.0663			
			.949	-.1257	.0218	.900	-.1425	-.0723			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.0158	-.0040	.000	1.3046	.0921	.000	1.2184	1.1541	.000	.0921	.0861
.682	-.0069	.0119	.200	.0436	.0525	.100	-.0287	-.0376	.200	-.0218	-.0416
.699	-.0099	.0020	.400	-.0069	-.0069	.200	-.0040	-.0129	.400	-.0089	-.0040
.748	-.0129	.0020	.600	-.0010	.0030	.300	-.0010	-.0069	.600	.0109	.0089
.835	-.0188	.0030	.639	-.0158	-.0069	.400	-.0040	-.0069	.800	.0129	-.0010
.949	-.0287	-.0010	.668	.0030	.0158	.500	-.0099	-.0158			
			.686	-.0040	.0049	.600	-.0099	-.0129			
			.738	-.0099	.0020	.700	-.0158	-.0069			
			.825	-.0188	-.0010	.800	-.0168	-.0129			
			.949	-.0257	-.0079	.900	-.0277	-.0257			

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.0822	.1089	.000	.9651	.1138	.000	.9868	1.5797	.000	.1079	.1079
.682	-.0693	.1287	.200	-.0445	.1208	.100	-.0723	.0089	.200	-.0604	.0059
.699	-.0723	.1188	.400	-.0693	.1247	.200	-.0782	.0277	.400	-.0742	.0683
.748	-.0752	.1257	.600	-.0663	.1336	.300	-.0693	.0841	.600	-.0742	.1118
.835	-.0822	.1208	.639	-.0782	.1178	.400	-.0693	.0930	.800	-.0683	.1178
.949	-.0881	.1059	.668	-.0633	.1425	.500	-.0752	.1059			
			.686	-.0693	.1257	.600	-.0782	.1178			
			.738	-.0723	.1217	.700	-.0822	.1208			
			.825	-.0752	.1118	.800	-.0742	.0960			
			.949	-.0782	.1118	.900	-.0901	.0930			

 $\alpha = 20^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1188	.2900	.000	.2969	.1623	.000	.3662	2.1132	.000	.1564	.1564
.682	-.1128	.3098	.200	-.1505	.2583	.100	-.1445	.1178	.200	-.1178	.1148
.699	-.1128	.3029	.400	-.1406	.3266	.200	-.1505	.1960	.400	-.1227	.2494
.748	-.1099	.3058	.600	-.1316	.3266	.300	-.1505	.2643	.600	-.1257	.3049
.835	-.1069	.3019	.639	-.1287	.3019	.400	-.1475	.2930	.800	-.1287	.3148
.949	-.0663	.2989	.668	-.1128	.3227	.500	-.1475	.3118			
			.686	-.1188	.3029	.600	-.1475	.3336			
			.738	-.1128	.3098	.700	-.1406	.3306			
			.825	-.0881	.3058	.800	-.1148	.2771			
			.949	-.0752	.3098	.900	-.1227	.2831			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b) M = 2.88 - Continued

$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	.1336	.1277	.000	.9166	.1782	.000	1.0729	1.0512	.000	.1782	.1782
.682	.1396	.1326	.200	.3148	.3494	.100	.1336	.1118	.200	.1801	.1247
.699	.1366	.1297	.400	.1554	.1524	.200	.1831	.1742	.400	.1495	.1307
.748	.1366	.1257	.600	.1425	.1396	.300	.1772	.1683	.600	.1277	.0990
.835	.1425	.1425	.639	.1118	.1247	.400	.1683	.1584	.800	.1059	.0772
.949	.1495	.1524	.668	.1396	.1396	.500	.1524	.1396			
			.686	.1277	.1227	.600	.1495	.1208			
			.738	.1208	.1128	.700	.1307	.1019			
			.825	.1118	.1029	.800	.1089	.0713			
			.949	.1208	.1297	.900	.0792	.0495			

$\alpha = 10^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	.0277	.2831	.000	.5266	.1505	.000	.7364	1.6658	.000	.1396	.1445
.682	.0436	.2930	.200	.1307	.5553	.100	.0089	.2613	.200	.0515	.2831
.699	.0465	.2831	.400	.0119	.3524	.200	.0247	.3860	.400	.0356	.3019
.748	.0713	.2791	.600	.0465	.3177	.300	.0247	.3741	.600	.0109	.2613
.835	.0683	.2682	.639	.0366	.2930	.400	.0119	.3524	.800	-.0059	.2277
.949	.0208	.2682	.668	.0683	.3197	.500	.0030	.3049			
			.686	.0653	.2930	.600	.0030	.2831			
			.738	.0841	.2831	.700	.0059	.2613			
			.825	.1118	.2524	.800	.0267	.1960			
			.949	.0713	.2326	.900	.0436	.1801			

$\alpha = 20^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0198	.5206	.000	.0822	.1247	.000	.1415	2.2805	.000	.1247	.1198
.682	-.0158	.5850	.200	-.1188	.8295	.100	-.0723	.5325	.200	-.0544	.5731
.699	-.0129	.5820	.400	-.0851	.6394	.200	-.0822	.7235	.400	-.0653	.5800
.748	-.0228	.5484	.600	-.0040	.5672	.300	-.0940	.6988	.600	.0079	.5206
.835	-.0475	.5236	.639	-.0069	.5206	.400	-.0822	.6137	.800	.0386	.4801
.949	-.0822	.4702	.668	.0208	.5919	.500	-.0287	.5672			
			.686	.0119	.5513	.600	-.0257	.5295			
			.738	.0208	.5177	.700	-.0158	.4860			
			.825	-.0198	.4682	.800	.0079	.4019			
			.949	-.0633	.4781	.900	.0000	.3959			

$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0762	-.0673	.000	.9829	.1455	.000	1.0868	1.0324	.000	.1455	.1455
.682	-.0673	-.0534	.200	-.0831	-.0762	.100	.0059	-.0129	.200	-.0119	-.0386
.699	-.0673	-.0495	.400	-.0762	-.0673	.200	-.0416	-.0643	.400	-.0059	-.0416
.748	-.0673	-.0436	.600	-.0673	-.0544	.300	-.0673	-.0703	.600	-.0198	-.0544
.835	-.0673	-.0475	.639	-.0732	-.0643	.400	-.0732	-.0802	.800	-.0307	-.0544
.949	-.0673	-.0356	.668	-.0604	-.0465	.500	-.0673	-.0762			
			.686	-.0673	-.0495	.600	-.0643	-.0643			
			.738	-.0643	-.0465	.700	-.0604	-.0515			
			.825	-.0574	-.0436	.800	-.0475	-.0475			
			.949	-.0544	-.0366	.900	-.0505	-.0475			

$\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0930	-.0158	.000	.4900	.1505	.000	.7305	1.6500	.000	.1396	.1455
.682	-.0831	.0010	.200	-.0802	-.0574	.100	-.0257	.1811	.200	-.0614	.1178
.699	-.0861	.0010	.400	-.0732	-.1019	.200	-.0861	.0633	.400	-.0782	.0574
.748	-.0861	.0010	.600	-.0732	-.0732	.300	-.0831	.0059	.600	-.0950	.0218
.835	-.0891	-.0099	.639	-.0831	-.0831	.400	-.0930	-.0158	.800	-.0970	.0030
.949	-.0831	-.0069	.668	-.0762	-.0703	.500	-.0960	-.0287			
			.686	-.0802	-.0772	.600	-.1019	-.0257			
			.738	-.0861	-.0732	.700	-.1049	-.0257			
			.825	-.0891	-.0297	.800	-.0970	-.0317			
			.949	-.0891	-.0020	.900	-.1109	-.0356			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b)  $M = 2.88$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 20^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1376	.1307	.000	.1010	.1455	.000	.2217	2.2142	.000	.1396	.1396
.682	-.1376	.1406	.200	-.1465	.0386	.100	-.1495	.4662	.200	-.1505	.3573
.699	-.1336	.1376	.400	-.1435	-.0257	.200	-.1534	.2524	.400	-.1415	.2326
.748	-.1307	.1445	.600	-.1376	.0129	.300	-.1534	.1663	.600	-.1247	.1722
.835	-.1247	.1376	.639	-.1336	-.0099	.400	-.1534	.1148	.800	-.1247	.1435
.949	-.1178	.1594	.668	-.1307	.0148	.500	-.1495	.1148			
			.686	-.1336	.0148	.600	-.1465	.1049			
			.738	-.1307	.0287	.700	-.1435	.0960			
			.825	-.1277	.0901	.800	-.1227	.0891			
			.949	-.1089	.1237	.900	-.1366	.0802			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	.0574	.0663	.000	1.3313	.1019	.000	1.2877	1.2600	.000	.1019	.1019
.682	.0703	.0802	.200	.0990	.0950	.100	.2643	.2326	.200	.2633	.2227
.699	.0633	.0703	.400	.0950	.0990	.200	.2197	.2039	.400	.2158	.1653
.748	.0604	.0703	.600	.0604	.0762	.300	.2009	.1851	.600	.1633	.1277
.835	.0604	.0604	.639	.0416	.0633	.400	.1811	.1722	.800	.1326	.1019
.949	.0287	.0544	.668	.0604	.0732	.500	.1752	.1524			
			.686	.0475	.0594	.600	.1653	.1366			
			.738	.0376	.0564	.700	.1524	.1237			
			.825	.0346	.0633	.800	.1435	.1148			
			.949	.0346	.0564	.900	.1297	.1049			

 $\alpha = 10^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.0445	.2168	.000	.9829	.1178	.000	1.0541	1.6728	.000	.1128	.1178
.682	-.0317	.2326	.200	.0059	.2583	.100	.1336	.3791	.200	.1465	.3504
.699	-.0356	.2227	.400	-.0158	.2613	.200	.0990	.3375	.400	.1019	.2613
.748	-.0386	.2227	.600	-.0515	.2425	.300	.0792	.3088	.600	.0584	.2672
.835	-.0475	.1910	.639	-.0604	.2197	.400	.0604	.3088	.800	.0307	.2514
.949	-.0574	.1752	.668	-.0416	.2257	.500	.0475	.2900			
			.686	-.0515	.2019	.600	.0445	.2801			
			.738	-.0643	.2128	.700	.0376	.2702			
			.825	-.0643	.1950	.800	.0356	.2583			
			.949	-.0673	.1821	.900	.0188	.2455			

 $\alpha = 20^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	-.1178	.4375	.000	.2989	.1722	.000	.3811	2.2587	.000	.1613	.1613
.682	-.1148	.4306	.200	-.1247	.5365	.100	-.0802	.6661	.200	-.0148	.5810
.699	-.1148	.4167	.400	-.1336	.5167	.200	-.0802	.6127	.400	-.0366	.4949
.748	-.1118	.4098	.600	-.1376	.4603	.300	-.0831	.5741	.600	-.0475	.4890
.835	-.1089	.3840	.639	-.1336	.4286	.400	-.0901	.5266	.800	-.0396	.4731
.949	-.0930	.3642	.668	-.1217	.4127	.500	-.0930	.5107			
			.686	-.1277	.3791	.600	-.1019	.4979			
			.738	-.1217	.3930	.700	-.1059	.4919			
			.825	-.1118	.3692	.800	-.0831	.4820			
			.949	-.0772	.3524	.900	-.0307	.4504			

 $\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$ 

.647	.2633	.2504	.000	.9611	.1940	.000	1.1244	1.0868	.000	.1891	.1891
.682	.2831	.2692	.200	.3177	.3148	.100	.5978	.5533	.200	.6256	.5464
.699	.2791	.2524	.400	.3336	.3306	.200	.5276	.5117	.400	.4424	.3910
.748	.2791	.2593	.600	.2663	.2861	.300	.4890	.4702	.600	.3702	.3078
.835	.2603	.2445	.639	.2286	.2504	.400	.4612	.4385	.800	.3197	.2603
.949	.2603	.2385	.668	.2504	.2623	.500	.4444	.3969			
			.686	.2346	.2356	.600	.4127	.3524			
			.738	.2158	.2049	.700	.3781	.3306			
			.825	.2544	.2316	.800	.3425	.2890			
			.949	.2861	.2861	.900	.3058	.2544			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(b)  $M = 2.88$  - Concluded

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 10^\circ$ ;  $\beta = 10^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$

.647	.0921	.4682	.000	.5444	.1564	.000	.6651	1.7054	.000	.1505	.1505
.682	.1208	.4801	.200	.0604	.6246	.100	.2702	.9304	.200	.3474	.8473
.699	.1208	.4563	.400	.1237	.6087	.200	.2643	.8532	.400	.2752	.6275
.748	.1277	.4424	.600	.1465	.4999	.300	.2514	.7770	.600	.2148	.5286
.835	.1465	.3979	.639	.1277	.4523	.400	.2385	.6780	.800	.1702	.4622
.949	.1564	.3791	.668	.1564	.4563	.500	.2326	.6087			
			.686	.1564	.4226	.600	.2257	.5672			
			.738	.1910	.4058	.700	.2583	.5355			
			.825	.2069	.4118	.800	.3741	.4870			
			.949	.2197	.3781	.900	.3831	.4454			

$\alpha = 20^\circ$ ;  $\beta = 10^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$

.647	.0129	.7958	.000	.0950	.1336	.000	.0732	2.3062	.000	.1336	.1277
.682	.0287	.7740	.200	-.1118	1.0700	.100	.0218	1.4966	.200	.1099	1.2076
.699	.0317	.7503	.400	-.0099	.9393	.200	.0129	1.3095	.400	.0633	.9304
.748	.0089	.7087	.600	.0544	.7711	.300	-.0030	1.1373	.600	.1960	.8027
.835	-.0287	.6780	.639	.0416	.7107	.400	.0346	.9809	.800	.3207	.7582
.949	-.0445	.6206	.668	.0732	.7532	.500	.1148	.9017			
			.686	.0762	.6919	.600	.1435	.8572			
			.738	.0861	.7196	.700	.2069	.8473			
			.825	.0703	.6612	.800	.2514	.7552			
			.949	.0287	.7028	.900	.2405	.6978			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c)  $M = 4.65$ 

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

 $\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0445	-.0445	.000	.7255	.2127	.000	1.0684	1.0585	.000	1.1492	.2127
.682	-.0445	-.0429	.200	-.0445	.0066	.100	-.0297	-.0247	.200	-.0247	-.0346
.699	-.0445	-.0429	.400	-.0445	-.0445	.200	-.0396	-.0346	.400	-.0297	-.0396
.748	-.0445	-.0429	.600	-.0445	-.0445	.300	-.0445	-.0396	.600	-.0346	-.0396
.835	-.0445	-.0396	.639	-.0445	-.0445	.400	-.0445	-.0445	.800	-.0297	-.0396
.949	-.0445	-.0346	.668	-.0511	-.0379	.500	-.0445	-.0445			
			.686	-.0511	-.0379	.600	-.0445	-.0511			
			.738	-.0511	-.0429	.700	-.0445	-.0511			
			.825	-.0511	-.0379	.800	.0066	-.0445			
			.949	-.0445	-.0379	.900	-.0346	-.0445			

 $\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0561	.0231	.000	.0775	.1946	.000	.2490	2.8706	.000	.3199	.1847
.682	-.0561	.0346	.200	-.0561	.0857	.100	-.0561	.1171	.200	-.0561	.0907
.699	-.0561	.0280	.400	-.0561	.0379	.200	-.0561	.0907	.400	-.0561	.0857
.748	-.0561	.0346	.600	-.0561	.0280	.300	-.0561	.0857	.600	-.0561	.0857
.835	-.0561	.0379	.639	-.0561	.0181	.400	-.0561	.0808	.800	-.0561	.0742
.949	-.0511	.0429	.668	-.0561	.0346	.500	-.0561	.0643			
			.686	-.0610	.0462	.600	-.0610	.0643			
			.738	-.0610	.0280	.700	-.0610	.0594			
			.825	-.0610	.0280	.800	.0066	.0594			
			.949	-.0561	.0346	.900	-.0528	.0495			

 $\alpha = 28^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0495	.1698	.000	-.0478	.1847	.000	.0066	1.8648	.000	.0231	.1847
.682	-.0495	.2012	.200	-.0561	.2589	.100	-.0561	.2012	.200	-.0610	.0181
.699	-.0561	.2012	.400	-.0495	.1748	.200	-.0561	.1649	.400	-.0610	.1072
.748	-.0561	.2193	.600	-.0445	.1583	.300	-.0561	.1270	.600	-.0478	.0445
.835	-.0561	.2424	.639	-.0445	.1533	.400	-.0495	.1072	.800	-.0478	.0544
.949	-.0561	.2523	.668	-.0445	.1913	.500	-.0445	.0907			
			.686	-.0495	.1847	.600	-.0445	.0544			
			.738	-.0561	.1962	.700	-.0445	.0330			
			.825	-.0561	.2012	.800	-.0016	.0445			
			.949	-.0561	.2127	.900	-.0561	.0379			

 $\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	.0181	.0330	.000	1.1904	.1500	.000	1.2630	1.2712	.000	1.2811	.1500
.682	.0330	.0231	.200	.0330	.0594	.100	.0429	.0544	.200	.0528	.0429
.699	.0280	.0181	.400	.0280	.0379	.200	.0379	.0429	.400	.0429	.0379
.748	.0231	.0115	.600	.0280	.0379	.300	.0379	.0429	.600	.0396	.0280
.835	.0181	.0379	.639	.0231	.0330	.400	.0379	.0379	.800	.0346	.0231
.949	.0115	.0429	.668	.0379	.0297	.500	.0330	.0379			
			.686	.0330	.0231	.600	.0330	.0379			
			.738	.0330	.0231	.700	.0330	.0330			
			.825	.0280	.0231	.800	.0627	.0330			
			.949	.0280	.0297	.900	.0478	.0330			

 $\alpha = 5^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$ 

.647	-.0132	.0643	.000	.9695	.1583	.000	1.1129	1.6439	.000	1.1129	.1583
.682	-.0033	.0791	.200	.0181	.0857	.100	.0379	.0907	.200	.0396	.0857
.699	-.0033	.0725	.400	.0066	.0692	.200	.0280	.0808	.400	.0346	.0692
.748	-.0033	.0725	.600	.0016	.0742	.300	.0330	.0808	.600	.0297	.0643
.835	-.0132	.0742	.639	-.0033	.0643	.400	.0330	.0808	.800	.0346	.0594
.949	-.0132	.0808	.668	.0066	.0791	.500	.0330	.0742			
			.686	.0066	.0791	.600	.0330	.0692			
			.738	.0016	.0725	.700	.0231	.0643			
			.825	.0016	.0791	.800	.0478	.0594			
			.949	.0016	.0841	.900	.0214	.0594			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c) M = 4.65 - Continued

$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 10^\circ; \beta = -10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0346	.1171	.000	.5359	.1583	.000	.8145	2.1517	.000	.6612	.1583
.682	-.0247	.1336	.200	-.0082	.1369	.100	.0231	.1484	.200	.0396	.1319
.699	-.0297	.1286	.400	-.0198	.1171	.200	.0115	.1369	.400	.0297	.1121
.748	-.0297	.1286	.600	-.0247	.1220	.300	.0066	.1369	.600	.0165	.1121
.835	-.0346	.1270	.639	-.0297	.1171	.400	.0066	.1319	.800	.0115	.1055
.949	-.0346	.1319	.668	-.0198	.1336	.500	.0066	.1220			
			.686	-.0198	.1286	.600	.0016	.1121			
			.738	-.0247	.1286	.700	-.0033	.1121			
			.825	-.0247	.1336	.800	.0297	.1055			
			.949	-.0198	.1336	.900	-.0016	.1055			

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0511	.2061	.000	.1418	.1863	.000	.4749	2.8590	.000	.6364	.1764
.682	-.0445	.2292	.200	-.0511	.2259	.100	-.0247	.2424	.200	.0066	.1995
.699	-.0445	.2242	.400	-.0511	.2061	.200	-.0297	.2259	.400	-.0016	.1847
.748	-.0445	.2242	.600	-.0511	.2110	.300	-.0346	.2259	.600	-.0165	.1847
.835	-.0511	.2160	.639	-.0511	.1946	.400	-.0396	.2160	.800	-.0198	.1748
.949	-.0511	.2209	.668	-.0396	.2242	.500	-.0396	.1946			
			.686	-.0445	.2127	.600	-.0445	.1896			
			.738	-.0445	.2127	.700	-.0445	.1847			
			.825	-.0445	.2176	.800	.0115	.1797			
			.949	-.0445	.2176	.900	-.0379	.1797			

$\alpha = 28^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0495	.5622	.000	-.0115	.1500	.000	-.0214	1.8236	.000	.0066	.1500
.682	-.0495	.5820	.200	-.0561	.5144	.100	-.0610	.1434	.200	-.0429	.1072
.699	-.0495	.5820	.400	-.0445	.5507	.200	-.0610	.2012	.400	-.0379	.2786
.748	-.0495	.5919	.600	-.0445	.6134	.300	-.0561	.1748	.600	-.0297	.2786
.835	-.0561	.5985	.639	-.0445	.5936	.400	-.0495	.2275	.800	-.0247	.1847
.949	-.0561	.6183	.668	-.0396	.6315	.500	-.0445	.2012			
			.686	-.0445	.6200	.600	-.0396	.1649			
			.738	-.0495	.6200	.700	-.0396	.2325			
			.825	-.0495	.6546	.800	.0115	.2688			
			.949	-.0495	.6991	.900	-.0379	.2737			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	.1533	.1698	.000	.7980	.1500	.000	1.1047	1.2481	.000	1.1311	.1418
.682	.1698	.2028	.200	.2110	.2374	.100	.2638	.2473	.200	.2440	.2589
.699	.1698	.1913	.400	.2012	.2160	.200	.2523	.2523	.400	.2440	.2523
.748	.1583	.1863	.600	.1896	.2012	.300	.2473	.2473	.600	.2209	.2325
.835	.1583	.1748	.639	.1698	.1896	.400	.2424	.2473	.800	.2077	.2061
.949	.1484	.1797	.668	.1962	.2127	.500	.2374	.2374			
			.686	.1847	.1962	.600	.2275	.2325			
			.738	.1797	.1913	.700	.2160	.2275			
			.825	.1797	.2077	.800	.2176	.2110			
			.949	.1649	.1962	.900	.2077	.2012			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 0^\circ$

.647	-.0132	.5705	.000	.0412	.1764	.000	.2490	3.0140	.000	.3116	.1682
.682	.0066	.6018	.200	.0066	.6381	.100	.0544	.5655	.200	.0791	.5342
.699	.0066	.5639	.400	.0280	.6134	.200	.0429	.5870	.400	.0610	.4930
.748	.0115	.5639	.600	.0115	.6183	.300	.0379	.6183	.600	.0478	.4930
.835	.0231	.5342	.639	.0016	.5820	.400	.0330	.6232	.800	.0396	.4815
.949	.0330	.5128	.668	.0181	.6084	.500	.0330	.5969			
			.686	.0066	.5804	.600	.0429	.5870			
			.738	.0280	.6579	.700	.0280	.5606			
			.825	.0544	.6018	.800	.0478	.6183			
			.949	.0643	.5474	.900	.0660	.6068			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c)  $M = 4.65$  - Continued

$\frac{x_V}{c_V}$	$C_p$ at $\frac{z}{b_V}$ of —		$\frac{x_V}{c_V}$	$C_p$ at $\frac{z}{b_V}$ of —		$\frac{x_V}{c_V}$	$C_p$ at $\frac{z}{b_V}$ of —		$\frac{x_V}{c_V}$	$C_p$ at $\frac{z}{b_V}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 28^\circ; \beta = 10^\circ; \delta_V = 0^\circ; \delta_S = 0^\circ$

.647	-.0297	.9217	.000	-.0478	.1583	.000	.0148	1.9637	.000	.0231	.1682
.682	-.0297	.9316	.200	-.0396	1.8681	.100	-.0247	.8277	.200	-.0165	.6661
.699	-.0297	.8920	.400	-.0082	1.2300	.200	-.0247	1.3355	.400	-.0115	.7700
.748	-.0396	.8969	.600	.0181	1.0322	.300	-.0247	1.2415	.600	-.0016	1.0800
.835	-.0495	.8491	.639	.0231	.9332	.400	-.0181	1.1525	.800	.0610	.8640
.949	-.0561	.8013	.668	.0594	.9151	.500	-.0132	1.0470			
			.686	.0544	.8640	.600	.0379	.8805			
			.738	.0379	.8475	.700	.0379	.8442			
			.825	.0066	.8475	.800	.0610	.8326			
			.949	-.0247	.8425	.900	.0346	.7815			

$\alpha = 0^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.647	-.0181	-.0132	.000	.7288	.2143	.000	1.0536	1.0536	.000	1.1344	.2143
.682	.0692	.0181	.200	-.0495	.0016	.100	-.0297	-.0247	.200	-.0247	-.0297
.699	.0643	.0297	.400	-.0445	-.0396	.200	-.0396	-.0346	.400	-.0297	-.0346
.748	.0907	.0857	.600	-.0346	-.0247	.300	-.0445	-.0396	.600	-.0346	-.0346
.835	.1336	.1484	.639	-.0297	-.0181	.400	-.0445	-.0396	.800	-.0297	-.0297
.949	.1896	.2473	.668	-.0181	-.0049	.500	-.0445	-.0396			
			.686	-.0033	.0066	.600	-.0396	-.0346			
			.738	.0445	.0346	.700	-.0396	-.0297			
			.825	.1121	.1187	.800	.0115	-.0346			
			.949	.1649	.2424	.900	-.0346	-.0346			

$\alpha = 15^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.647	-.0495	.1583	.000	.0874	.2045	.000	.2506	2.8590	.000	.3215	.2045
.682	-.0396	.3314	.200	-.0561	.0808	.100	-.0561	.1171	.200	-.0561	.0956
.699	-.0346	.6183	.400	-.0561	.0330	.200	-.0610	.0907	.400	-.0561	.0907
.748	-.0346	.5952	.600	-.0561	.1006	.300	-.0561	.0857	.600	-.0561	.0857
.835	-.0181	.7964	.639	-.0561	.1319	.400	-.0561	.0758	.800	-.0561	.0758
.949	.0330	.8425	.668	-.0445	.2704	.500	-.0561	.0643			
			.686	-.0396	.4897	.600	-.0561	.0643			
			.738	-.0181	.9662	.700	-.0561	.0643			
			.825	-.0247	.7634	.800	.0033	.0643			
			.949	-.0132	.7420	.900	-.0528	.0594			

$\alpha = 28^\circ; \beta = -10^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.647	-.0396	.4452	.000	-.0478	.1764	.000	.0148	1.8615	.000	.0247	.1682
.682	-.0247	.5837	.200	-.0610	.2523	.100	-.0610	.2160	.200	-.0561	.0115
.699	-.0297	.8425	.400	-.0511	.1748	.200	-.0610	.1682	.400	-.0561	.1055
.748	-.0346	1.5763	.600	-.0445	.3941	.300	-.0561	.1270	.600	-.0478	.0379
.835	-.0445	1.7461	.639	-.0396	.4188	.400	-.0561	.1006	.800	-.0478	.0643
.949	-.0396	1.4213	.668	-.0297	.6628	.500	-.0511	.0956			
			.686	-.0346	.9365	.600	-.0445	.0495			
			.738	-.0297	1.8285	.700	-.0445	.0495			
			.825	-.0346	1.7444	.800	.0033	.0379			
			.949	-.0445	1.5878	.900	-.0478	.0643			

$\alpha = 0^\circ; \beta = 0^\circ; \delta_V = 0^\circ; \delta_S = 35^\circ$

.647	.1814	.1336	.000	1.1921	.1599	.000	1.2646	1.2828	.000	1.2828	.1599
.682	.3858	.5425	.200	.0330	.0445	.100	.0445	.0495	.200	.0478	.0396
.699	.6529	.9596	.400	.0280	.0231	.200	.0396	.0396	.400	.0396	.0330
.748	1.1294	1.1509	.600	.0594	.0330	.300	.0330	.0330	.600	.0297	.0231
.835	.9151	.8211	.639	.1748	.1484	.400	.0396	.0330	.800	.0247	.0231
.949	.8986	1.2828	.668	.3858	.4122	.500	.0330	.0280			
			.686	.6941	.7617	.600	.0330	.0280			
			.738	1.2086	1.2745	.700	.0544	.0495			
			.825	.9942	1.1162	.800	.0577	.0330			
			.949	.8524	.8854	.900	.0429	.0396			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c)  $M = 4.65$  - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0297	.5458	.000	.1237	.1863	.000	.4765	2.8425	.000	.6298	.1781
.682	-.0082	.8491	.200	-.0445	.2275	.100	-.0181	.2473	.200	.0033	.2012
.699	-.0082	1.2762	.400	-.0445	.2012	.200	-.0297	.2275	.400	-.0066	.1847
.748	-.0033	2.4155	.600	-.0396	.4930	.300	-.0346	.2209	.600	-.0198	.1847
.835	.0330	2.4650	.639	-.0346	.4880	.400	-.0346	.2160	.800	-.0247	.2012
.949	.0692	2.1517	.668	-.0247	.7139	.500	-.0396	.1962			
			.686	-.0181	1.0618	.600	-.0396	.2012			
			.738	.0181	2.1352	.700	-.0396	.2424			
			.825	.0495	2.2704	.800	.0066	.1847			
			.949	-.0082	2.0676	.900	-.0429	.1748			

$\alpha = 28^\circ; \beta = 0^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0346	1.2333	.000	-.0115	.1599	.000	-.0214	1.8302	.000	.0148	.1599
.682	-.0297	1.6290	.200	-.0511	.5243	.100	-.0561	.1682	.200	-.0478	.1055
.699	-.0297	2.1517	.400	-.0396	.5556	.200	-.0561	.2885	.400	-.0429	.2259
.748	-.0346	3.3421	.600	-.0346	1.1509	.300	-.0511	.2572	.600	-.0346	.3199
.835	-.0396	3.4790	.639	-.0346	1.1080	.400	-.0445	.2688	.800	-.0297	.4188
.949	-.0247	2.9101	.668	-.0132	1.5894	.500	-.0346	.2259			
			.686	-.0247	2.3710	.600	-.0346	.3248			
			.738	-.0247	3.6455	.700	-.0346	.1946			
			.825	-.0297	2.6843	.800	.0115	.2688			
			.949	-.0346	2.7519	.900	-.0379	.4254			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.4617	.4353	.000	.7914	.1500	.000	1.0981	1.2350	.000	1.1162	.1500
.682	.9843	1.4493	.200	.2160	.2374	.100	.2688	.2589	.200	.2539	.2589
.699	.9843	1.4493	.400	.2061	.2160	.200	.2589	.2589	.400	.2539	.2523
.748	1.7692	2.3265	.600	.3364	.2061	.300	.2473	.2523	.600	.2308	.2325
.835	2.3397	2.2242	.639	.4831	.4732	.400	.2424	.2523	.800	.2176	.2110
.949	2.1665	2.0313	.668	.8326	1.1360	.500	.2325	.2424			
	1.1674	1.3833	.686	1.2630	1.7362	.600	.2275	.2374			
			.738	2.0462	2.2984	.700	.2638	.2424			
			.825	1.6702	1.7758	.800	.2539	.2589			
			.949	.9217	1.1195	.900	.2490	.2786			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	.0808	1.2350	.000	.0429	.1682	.000	.2506	2.9678	.000	.3215	.1599
.682	.1220	2.2918	.200	.0066	.6447	.100	.0594	.5705	.200	.0758	.5392
.699	.0692	3.3932	.400	.0544	.6084	.200	.0445	.5870	.400	.0610	.4979
.748	.0808	4.4765	.600	.0544	.6496	.300	.0379	.6183	.600	.0478	.4979
.835	.1847	3.4015	.639	.1270	1.2086	.400	.0330	.6282	.800	.0528	.5392
.949	.5655	3.1146	.668	.4666	2.3941	.500	.0379	.5969			
			.686	.2473	3.7246	.600	.0594	.5820			
			.738	.2209	4.3974	.700	.1006	.6331			
			.825	.3512	3.4097	.800	.0841	.7123			
			.949	.6908	2.8656	.900	.0660	.7222			

$\alpha = 28^\circ; \beta = 10^\circ; \delta_v = 0^\circ; \delta_s = 35^\circ$

.647	-.0082	1.8813	.000	-.0478	.1599	.000	.0148	1.9472	.000	.0148	.1599
.682	.0231	2.6167	.200	-.0346	1.9077	.100	-.0247	.8524	.200	-.0165	.6496
.699	.0132	3.3817	.400	.0066	1.2284	.200	-.0247	1.3800	.400	-.0066	.8524
.748	-.0247	4.3034	.600	.0132	1.5169	.300	-.0132	1.2762	.600	.0033	1.0882
.835	-.0445	3.7988	.639	.0544	1.7824	.400	-.0033	1.1822	.800	.0808	.9052
.949	-.0396	3.5680	.668	.2160	2.6678	.500	-.0082	1.0470			
			.686	.1632	3.4262	.600	.0231	.8739			
			.738	.1434	4.1632	.700	.0544	.9843			
			.825	.0280	3.5894	.800	.0758	1.0519			
			.949	-.0297	3.4048	.900	.0346	.8788			



TABLE V.- PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c) M = 4.65 - Continued

$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	$C_p$ at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0511	-.0445	.000	.7024	.1599	.000	.9810	.9085	.000	.1599	.1682
.682	-.0511	-.0445	.200	-.0561	.0016	.100	-.0561	-.0511	.200	-.0429	-.0511
.699	-.0511	-.0445	.400	-.0610	-.0561	.200	-.0561	-.0561	.400	-.0478	-.0511
.748	-.0511	-.0445	.600	-.0561	-.0561	.300	-.0610	-.0561	.600	-.0429	-.0511
.835	-.0511	-.0511	.839	-.0561	-.0511	.400	-.0610	-.0561	.800	-.0478	-.0561
.949	-.0511	-.0445	.668	-.0511	-.0445	.500	-.0610	-.0561			
			.686	-.0561	-.0445	.600	-.0610	-.0561			
			.738	-.0561	-.0445	.700	-.0610	-.0561			
			.825	-.0511	-.0445	.800	-.0666	-.0511			
			.949	-.0561	-.0445	.900	-.0478	-.0511			

$\alpha = 15^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0610	.0016	.000	.0857	.1764	.000	.2292	2.6216	.000	.1764	.1764
.682	-.0610	.0066	.200	-.0610	.0280	.100	-.0660	.0280	.200	-.0610	.0115
.699	-.0610	.0066	.400	-.0610	-.0082	.200	-.0660	.0115	.400	-.0610	.0181
.748	-.0610	.0066	.600	-.0660	-.0033	.300	-.0660	.0115	.600	-.0610	.0066
.835	-.0610	.0066	.839	-.0610	-.0033	.400	-.0660	.0115	.800	-.0610	-.0247
.949	-.0610	.0231	.668	-.0610	.0181	.500	-.0660	.0181			
			.686	-.0610	.0231	.600	-.0660	.0330			
			.738	-.0660	.0181	.700	-.0660	.0379			
			.825	-.0660	.0231	.800	-.0016	.0330			
			.949	-.0610	.0346	.900	-.0610	.0231			

$\alpha = 28^\circ; \beta = -10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0495	.1171	.000	-.0577	.1599	.000	-.0297	1.6768	.000	.1500	.1500
.682	-.0495	.1467	.200	-.0561	.0956	.100	-.0610	.1072	.200	-.0561	-.0132
.699	-.0561	.1467	.400	-.0561	.1171	.200	-.0610	.0692	.400	-.0561	-.0247
.748	-.0561	.2077	.639	-.0495	.1649	.300	-.0610	.0643	.600	-.0528	-.0033
.835	-.0561	.2902	.668	-.0445	.2292	.400	-.0561	.0495	.800	-.0528	.0066
.949	-.0561	.3166	.686	-.0495	.2242	.500	-.0561	.0495			
			.738	-.0561	.2638	.600	-.0495	.0330			
			.825	-.0561	.2803	.700	-.0495	.0066			
			.949	-.0561	.2572	.800	-.0033	-.0082			
						.900	-.0528	.0066			

$\alpha = 0^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	.0066	.0115	.000	1.2069	.1401	.000	1.2514	1.2152	.000	.1401	.1401
.682	.0165	.0280	.200	.0478	.0643	.100	-.0082	-.0082	.200	-.0066	-.0132
.699	.0115	.0231	.400	.0016	-.0033	.200	-.0198	-.0198	.400	-.0115	-.0198
.748	.0066	.0231	.600	.0066	.0016	.300	-.0132	-.0132	.600	-.0115	-.0082
.835	.0066	.0165	.839	-.0033	-.0033	.400	-.0082	-.0132	.800	-.0066	-.0033
.949	.0016	.0165	.668	.0115	.0181	.500	-.0082	-.0132			
			.686	.0115	.0181	.600	-.0082	-.0082			
			.738	.0066	.0181	.700	-.0082	-.0082			
			.825	.0066	.0231	.800	.0247	-.0082			
			.949	.0016	.0231	.900	-.0115	-.0132			

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0511	.1517	.000	.1401	.1583	.000	.5177	2.7552	.000	.1500	.1500
.682	-.0511	.1797	.200	-.0561	.1369	.100	-.0396	.1006	.200	-.0297	.0692
.699	-.0511	.1731	.400	-.0561	.1319	.200	-.0511	.0791	.400	-.0379	.0742
.748	-.0511	.1731	.600	-.0511	.1583	.300	-.0511	.0956	.600	-.0429	.1006
.835	-.0511	.1731	.839	-.0511	.1467	.400	-.0511	.1006	.800	-.0429	.1055
.949	-.0445	.1830	.668	-.0396	.1896	.500	-.0561	.1006			
			.686	-.0511	.1797	.600	-.0561	.1105			
			.738	-.0511	.1847	.700	-.0561	.1154			
			.825	-.0445	.1847	.800	.0016	.1105			
			.949	-.0396	.1797	.900	-.0528	.1006			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c) M = 4.65 - Continued

$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 28^\circ; \beta = 0^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0445	.5045	.000	-.0214	.1319	.000	-.0214	1.7807	.000	.1220	.1220
.682	-.0511	.5458	.200	-.0511	.3281	.100	-.0610	.0643	.200	-.0561	.0379
.699	-.0511	.5293	.400	-.0511	.4369	.200	-.0610	.0692	.400	-.0478	.1682
.748	-.0511	.5804	.600	-.0445	.5622	.300	-.0561	.0841	.600	-.0429	.1204
.835	-.0561	.6298	.639	-.0445	.5672	.400	-.0511	.0956	.800	-.0379	.1929
.949	-.0511	.6661	.668	-.0346	.6298	.500	-.0445	.1270			
			.686	-.0445	.6183	.600	-.0445	.1517			
			.738	-.0511	.6694	.700	-.0396	.1154			
			.825	-.0511	.7304	.800	.0066	.1204			
			.949	-.0511	.7634	.900	-.0478	.1467			

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.1336	.1434	.000	.8030	.1418	.000	1.1739	1.2383	.000	.1418	.1517
.682	.1550	.1764	.200	.3017	.3495	.100	.1121	.0973	.200	.1039	.0973
.699	.1500	.1649	.400	.1434	.1500	.200	.0973	.0923	.400	.1039	.1022
.748	.1500	.1698	.600	.1286	.1336	.300	.1237	.1121	.600	.0989	.1022
.835	.1434	.1599	.639	.1072	.1237	.400	.1237	.1237	.800	.0989	.0923
.949	.1237	.1500	.668	.1286	.1533	.500	.1187	.1187			
			.686	.1237	.1418	.600	.1121	.1121			
			.738	.1187	.1369	.700	.1022	.1072			
			.825	.1121	.1418	.800	.1088	.0973			
			.949	.0973	.1253	.900	.0758	.0758			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0181	.4864	.000	.0412	.1764	.000	.3017	2.9250	.000	.1764	.1682
.682	-.0033	.5293	.200	.0181	.7486	.100	-.0033	.2704	.200	.0082	.2440
.699	-.0033	.5012	.400	.0016	.4435	.200	-.0082	.2440	.400	-.0016	.2754
.748	-.0082	.5012	.600	.0016	.4864	.300	-.0082	.3759	.600	-.0066	.3116
.835	.0016	.4485	.639	-.0033	.4551	.400	-.0033	.3809	.800	-.0066	.3067
.949	.0016	.4171	.668	.0181	.5177	.500	-.0082	.3710			
			.686	.0132	.5177	.600	-.0082	.3644			
			.738	.0280	.5458	.700	-.0082	.3594			
			.825	.0280	.4847	.800	.0165	.3380			
			.949	.0231	.4221	.900	-.0115	.3644			

$\alpha = 28^\circ; \beta = 10^\circ; \delta_v = -7.5^\circ; \delta_s = 0^\circ$

.647	-.0181	.7914	.000	-.0478	.1880	.000	.0429	1.8450	.000	.1599	.1698
.682	-.0231	.7947	.200	-.0297	1.8236	.100	-.0396	.4452	.200	-.0346	.2391
.699	-.0297	.7617	.400	-.0033	1.0190	.200	-.0396	.8557	.400	-.0346	.3545
.748	-.0445	.7733	.600	.0132	.8821	.300	-.0346	.8920	.600	-.0297	.5606
.835	-.0495	.7650	.639	.0132	.8030	.400	-.0297	1.0190	.800	.0115	1.0602
.949	-.0561	.7123	.668	.0445	.8228	.500	-.0346	1.1822			
			.686	.0346	.7782	.600	-.0231	1.0503			
			.738	.0231	.7617	.700	.0016	.7387			
			.825	-.0132	.7337	.800	.0264	.6661			
			.949	-.0445	.7106	.900	-.0066	.5441			

$\alpha = 0^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0445	-.0396	.000	.7337	.2457	.000	1.1377	1.1657	.000	.2374	.2374
.682	-.0396	-.0379	.200	-.0495	.0148	.100	.0247	.0363	.200	.0181	.0148
.699	-.0396	-.0379	.400	-.0495	-.0445	.200	-.0016	.0082	.400	.0082	-.0016
.748	-.0396	-.0379	.600	-.0396	-.0445	.300	-.0181	-.0181	.600	.0000	-.0181
.835	-.0346	-.0346	.639	-.0445	-.0445	.400	-.0280	-.0231	.800	-.0099	-.0280
.949	-.0346	-.0280	.668	-.0346	-.0379	.500	-.0346	-.0280			
			.686	-.0346	-.0379	.600	-.0396	-.0346			
			.738	-.0396	-.0379	.700	-.0396	-.0346			
			.825	-.0346	-.0313	.800	.0132	-.0396			
			.949	-.0346	-.0313	.900	-.0280	-.0396			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Continued

(c) M = 4.65 - Continued

$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	C <sub>p</sub> at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 15^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0561	.0412	.000	.0725	.2193	.000	.3017	2.8821	.000	.2110	.2110
.682	-.0561	.0495	.200	-.0610	.1105	.100	-.0445	.3182	.200	-.0528	.2325
.699	-.0561	.0379	.400	-.0610	.0297	.200	-.0561	.2539	.400	-.0528	.1962
.748	-.0561	.0379	.600	-.0561	.0198	.300	-.0610	.2061	.600	-.0561	.1632
.835	-.0561	.0363	.639	-.0561	.0082	.400	-.0610	.1682	.800	-.0561	.1369
.949	-.0495	.0247	.668	-.0445	.0148	.500	-.0610	.1369			
			.686	-.0561	.0148	.600	-.0610	.1204			
			.738	-.0561	-.0082	.700	-.0610	.1105			
			.825	-.0561	-.0198	.800	.0033	.1055			
			.949	-.0495	-.0198	.900	-.0561	.0940			

$\alpha = 28^\circ; \beta = -10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0445	.1913	.000	-.0561	.2012	.000	.0445	1.8170	.000	.1913	.1913
.682	-.0495	.2209	.200	-.0561	.3083	.100	-.0561	.4534	.200	-.0528	.1055
.699	-.0495	.2094	.400	-.0495	.1533	.200	-.0561	.3462	.400	-.0528	.1055
.748	-.0561	.2143	.600	-.0445	.1369	.300	-.0561	.2440	.600	-.0379	.1533
.835	-.0561	.2176	.639	-.0445	.1204	.400	-.0495	.1698	.800	-.0330	.1319
.949	-.0561	.2275	.668	-.0396	.1401	.500	-.0445	.1533			
			.686	-.0445	.1352	.600	-.0445	.1055			
			.738	-.0495	.1121	.700	-.0445	.0725			
			.825	-.0561	.1121	.800	.0082	.0577			
			.949	-.0495	.1171	.900	-.0429	.0940			

$\alpha = 0^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.0412		.000	1.2300	.1913	.000	1.2663	1.3306	.000	.1814	.1814
.682	.0511	.0594	.200	.0561	.0676	.100	.1731	.1731	.200	.1715	.1632
.699	.0511	.0594	.400	.0676	.0627	.200	.1533	.1467	.400	.1583	.1418
.748	.0462	.0544	.600	.0511	.0511	.300	.1418	.1369	.600	.1401	.1204
.835	.0412	.0511	.639	.0412	.0412	.400	.1369	.1319	.800	.1253	.1039
.949	.0297	.0511	.668	.0627	.0544	.500	.1319	.1253			
			.686	.0627	.0544	.600	.1319	.1204			
			.738	.0511	.0478	.700	.1319	.1204			
			.825	.0511	.0660	.800	.1632	.1154			
			.949	.0462	.0660	.900	.1434	.1204			

$\alpha = 15^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0445	.2539	.000	.1270	.2110	.000	.4864	2.9101	.000	.2012	.2012
.682	-.0396	.2770	.200	-.0495	.2803	.100	.0082	.5045	.200	.0643	.4303
.699	-.0445	.2655	.400	-.0561	.2012	.200	.0082	.4897	.400	.0561	.3776
.748	-.0445	.2655	.600	-.0561	.1847	.300	.0033	.4468	.600	.0313	.3347
.835	-.0445	.2539	.639	-.0561	.1748	.400	-.0016	.4089	.800	.0181	.2918
.949	-.0495	.2440	.668	-.0346	.1863	.500	-.0066	.3512			
			.686	-.0561	.1797	.600	-.0181	.3182			
			.738	-.0495	.1517	.700	-.0231	.3017			
			.825	-.0495	.1797	.800	.0181	.2803			
			.949	-.0445	.2028	.900	-.0330	.2655			

$\alpha = 28^\circ; \beta = 0^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0445	.6232	.000	-.0198	.1830	.000	-.0297	1.8401	.000	.1731	.1830
.682	-.0445	.6430	.200	-.0495	.6661	.100	-.0561	.4254	.200	-.0478	.3561
.699	-.0445	.6315	.400	-.0396	.6282	.200	-.0495	.3924	.400	-.0379	.4254
.748	-.0445	.6265	.600	-.0396	.6018	.300	-.0445	.2968	.600	-.0280	.3710
.835	-.0495	.5952	.639	-.0396	.5688	.400	-.0396	.2918	.800	-.0247	.3776
.949	-.0445	.5853	.668	-.0231	.5804	.500	-.0346	.2655			
			.686	-.0396	.5639	.600	-.0231	.2325			
			.738	-.0445	.4946	.700	-.0231	.2391			
			.825	-.0495	.5523	.800	.0181	.2275			
			.949	-.0445	.5128	.900	-.0247	.2275			



TABLE V. - PRESSURE COEFFICIENTS MEASURED ON VERTICAL TAIL - Concluded

(c) M = 4.65 - Concluded

$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —		$\frac{x_v}{c_v}$	Cp at $\frac{z}{b_v}$ of —	
	.408	.457		.503	.564		.670	.751		.890	.873
	Upper	Lower		Upper	Lower		Upper	Lower		Upper	Lower

$\alpha = 0^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	.2012	.2176	.000	.8277	.1830	.000	1.0569	1.2135	.000	.1830	.1731
.682	.2226	.2391	.200	.2077	.2292	.100	.4584	.4419	.200	.4617	.4699
.699	.2176	.2325	.400	.2721	.2935	.200	.4699	.4633	.400	.4386	.4320
.748	.2012	.2209	.600	.2605	.2721	.300	.4369	.4320	.600	.3875	.3842
.835	.1913	.2077	.639	.2292	.2556	.400	.4155	.4204	.800	.3495	.3462
.949	.1797	.2127	.668	.2556	.2671	.500	.4106	.4204			
			.686	.2391	.2506	.600	.3941	.4056			
			.738	.2292	.2391	.700	.3842	.3891			
			.825	.2226	.2556	.800	.3825	.3677			
			.949	.2012	.2391	.900	.3726	.3512			

$\alpha = 15^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0132	.6711	.000	.0346	.2110	.000	.2473	3.0008	.000	.1913	.1830
.682	.0082	.7073	.200	.0033	.6991	.100	.1154	.9711	.200	.1582	.9497
.699	.0082	.6678	.400	.0511	.7420	.200	.1154	.9876	.400	.1204	.7832
.748	.0198	.6793	.600	.0462	.6876	.300	.1319	.9497	.600	.1072	.7205
.835	.0363	.6183	.639	.0363	.6397	.400	.1154	.9068	.800	.0841	.7947
.949	.0412	.5804	.668	.0676	.7024	.500	.0989	.8590			
			.686	.0577	.7766	.600	.0890	.8376			
			.738	.0676	.7024	.700	.0725	.8969			
			.825	.1204	.6727	.800	.1204	.8689			
			.949	.1418	.6051	.900	.1484	.7683			

$\alpha = 28^\circ; \beta = 10^\circ; \delta_v = 7.5^\circ; \delta_s = 0^\circ$

.647	-.0280	1.0091	.000	-.0561	.1913	.000	-.0379	1.9786	.000	.1830	.1913
.682	-.0231	1.0140	.200	-.0346	2.0824	.100	-.0066	1.2646	.200	.0082	.8425
.699	-.0280	.9728	.400	-.0066	1.3405	.200	.0033	1.9604	.400	.0181	1.3240
.748	-.0280	.9794	.600	.0511	1.0503	.300	.0082	1.7082	.600	.0643	.9975
.835	-.0396	.9382	.639	.0363	.9761	.400	.0148	1.4674	.800	.1385	.8689
.949	-.0445	.8541	.668	.0577	.9794	.500	.0363	1.2481			
			.686	.0462	.9217	.600	.1055	1.1360			
			.738	.0412	.9266	.700	.1369	1.0932			
			.825	-.0016	.9448	.800	.1484	1.0453			
			.949	-.0346	.9151	.900	.0973	.9662			



TABLE VI.- MEASURED IMPACT PRESSURE DISTRIBUTION ON FUSELAGE

M = 2.88						M = 4.65					
x/l	s, in.	$\phi$ , deg	P <sub>t</sub> /P <sub>t,∞</sub> at α = :			x/l	s, in.	$\phi$ , deg	P <sub>t</sub> /P <sub>t,∞</sub> at α = :		
			0°	10°	20°				0°	15°	28°
0.170	0.15	0	0.3517	0.5451	0.6036	0.170	0.15	0	0.0798	0.1325	0.1772
		15	.3147	.5153	.5586			15	.0674	.1678	.1651
		30	.3310	.5038	.5279			30	.0744	.1522	.1432
		50	.3558	.4720	.4654			50	.0830	.1320	.1144
		90	.3218	.3568	.2915			90	.0658	.0687	.0379
		135	.3764	.2900	.0747			135	.0966	.0276	.0020
		164	.5203	.2879	.3693			164	.1725	.0291	.0113
		175*	.5737	.4258	.3211			175*	.1257	.0330	.0109
		180	.5748	.4504	.2855			180	.1265	.0338	.0156
.348	.15	0	.2057	.3900	.5010	.348	.15	0	.0310	.1301	.1636
		15	.2968	.3981	.5022			15	.0456	.1285	.1659
		30	.2754	.3788	.4654			30	.0391	.1178	.1454
		50	.2395	.4031	.3980			50	.0325	.0985	.1123
		75*	.3388	.4226	.4889			75*	.0704	.1282	.1446
		90	.3686	.3481	.3083			90	.0933	.0842	.0640
		105*	.5193	.2267	.0858			105*	.0554	.0182	.0093
		135	.2078	.1418	.0970			135	.0344	.0031	.0011
		180	.3286	.1900	.1470			180	.0541	.0128	.0046
.348	.30	0	.3255	.4185	.5083	.348	.30	0	.0712	.1378	.1817
		15	.3266	.4114	.5001			15	.0704	.1328	.1736
		30	.3358	.3930	.4756			30	.0708	.1239	.1585
		50	.3440	.3972	.4083			50	.0708	.1027	.1223
		75*	.3541	.4226	.4827			75*	.0867	.1285	.1497
		90	.3807	.3531	.3214			90	.1057	.0930	.0764
		105*	.3388	.2838	.1326			105*	.0855	.0286	.0139
		135	.2908	.2256	.1418			135	.0588	.0197	.0008
		180	.2947	.2164	.1510			180	.0503	.0131	.0081
.348	.45	105*	.3479	.2685	.1459	.348	.45	105*	.0909	.0386	.0216
		135	.2989	.2439	.1510			135	.0708	.0286	.0073
		180	.2887	.2359	.1633			180	.0557	.0182	.0081
		0	.1892	.4087	.5315			0	.0384	.1438	.2280
		15	.1963	.4169	.5294			15	.0358	.1364	.2083
		30	.1931	.4209	.5508			30	.0350	.1387	.2123
		50	.3071	.3416	.5386			50	.0631	.1313	.2182
		72*	.3020	.2958	.4747			72*	.0538	.0868	.1647
		105*	.2928	.1230	.0122			105*	.0339	.0019	.0016
.752	.20	135	.1595	.0966	.0783	.752	.20	135	.0172	.0034	.0017
		180	.3273	.2919	.1473			180	.0577	.0174	.0036
		0	.3000	.4188	.5397			0	.0634	.1469	.2155
		15	.3131	.4188	.5356			15	.0640	.1473	.2136
		30	.3264	.4413	.5549			30	.0643	.1395	.2095
		50	.3498	.4576	.5742			50	.0793	.1478	.2365
		72*	.3406	.4606	.5783			72*	.0744	.1445	.2123
		105*	.3406	.0855	.0062			105*	-----	-----	-----
		135	.2064	.1423	.0549			135	.0255	.0065	.0014
.752	.40	180	.3570	.2878	.1280	.752	.40	180	-----	-----	-----
		0	.3498	.4158	.5386			0	.0762	.1514	.2356
		15	.3538	.4199	.5356			15	.0769	.1482	.2143
		30	.3600	.4351	.5457			30	.0769	.1448	.2204
		50	.3519	.4616	.5823			50	.0813	.1484	.2212
		72*	.3406	.4586	.5701			72*	.0752	.1534	.2295
		105*	.3376	.0345	.0184			105*	.0717	.0040	.0041
		135	.3365	.2135	.0467			135	.0645	.0076	.0025
		180	.3457	.2867	.1128			180	.0703	.0095	.0023
.752	.60	105*	.3395	.0448	.0802	.752	.60	105*	.0726	.0049	.0021
		135	.3570	.2531	.0416			135	.0830	.0067	.0044
		180	.3558	.2777	.0680			180	.0731	.0121	.0055
		30	.2529	.4978	.6290			30	.0402	.1747	.1917
		64*	.2979	.3363	.4193			64*	.0696	.1150	.1841
		110*	.2701	.2066	.0696			110*	-----	-----	-----
		135	.2754	.1677	.0440			135	.0280	.0087	.0060
		30	.3501	.5183	.6320			30	.0799	.1695	.1924
.910	.25	64*	.3798	.5102	.6412	.910	.25	64*	.0929	.1612	.2051
		110*	.3848	.2096	.0993			110*	.0823	.0034	.0025
		135	.2947	.1288	.0470			135	-----	-----	-----
		30	.4074	.5225	.6433			30	.1024	.1567	.1860
		64*	.3940	.5174	.6514			64*	.0887	.1533	.1810
		110*	.3940	.2546	.1175			110*	.0712	.0075	.0077
		135	.3593	.1636	.0848			135	.0724	.0101	.0021
		110*	.3798	.2596	.1247	.910	.50	110*	.0692	.0160	.0116
.910	.50	135	.3798	.2792	.1615			135	-----	-----	-----
		30	.4074	.5225	.6433			30	.1024	.1567	.1860
		64*	.3940	.5174	.6514			64*	.0887	.1533	.1810
		110*	.3940	.2546	.1175			110*	.0712	.0075	.0077
		135	.3593	.1636	.0848			135	.0724	.0101	.0021
		110*	.3798	.2596	.1247			110*	.0692	.0160	.0116
		135	.3798	.2792	.1615			135	-----	-----	-----

\*Denotes approximate angle.



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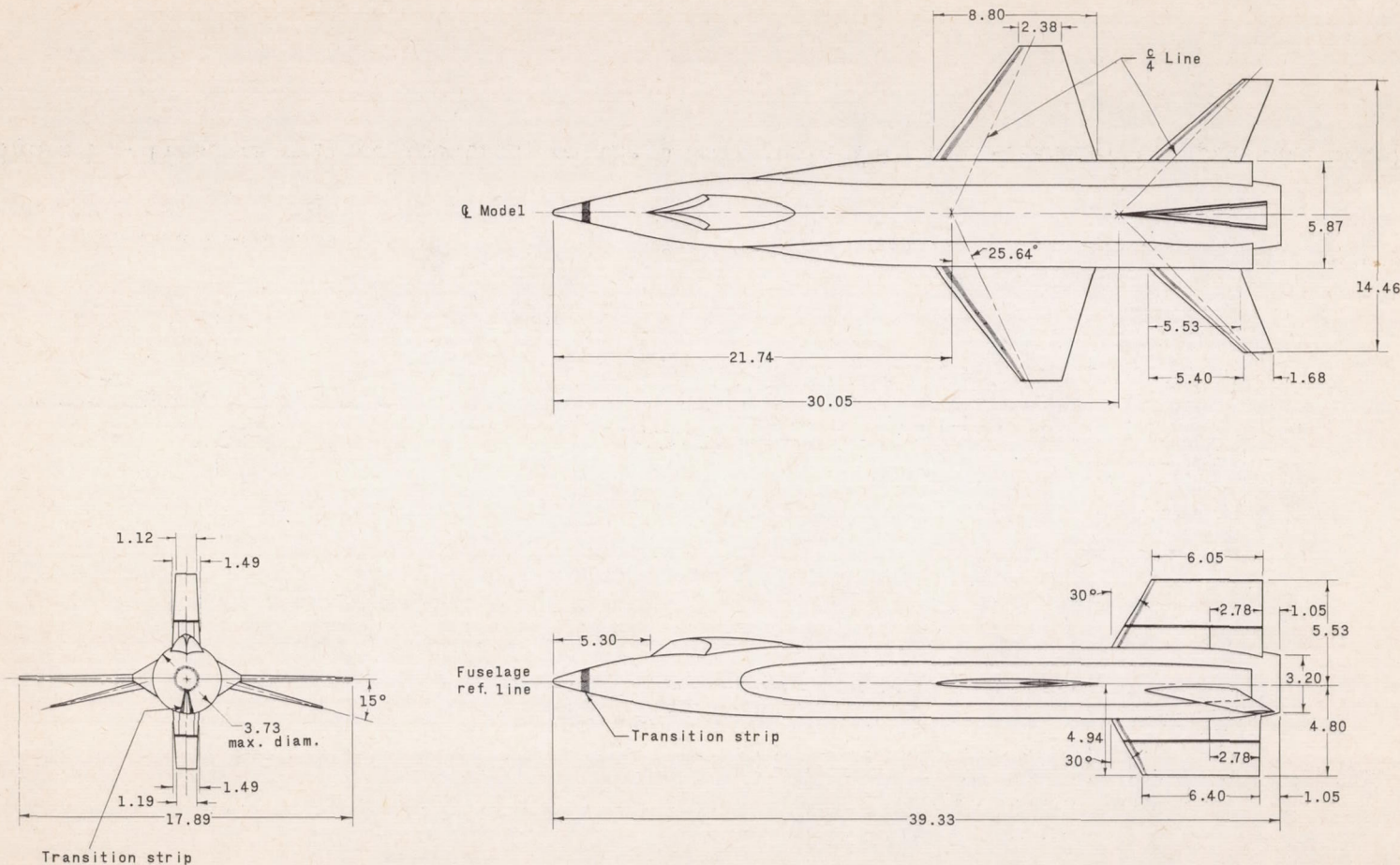


Figure 1.- Three-view sketch of 0.0667-scale X-15 heat-transfer and pressure model.  
(Dimensions are in inches except as noted.)



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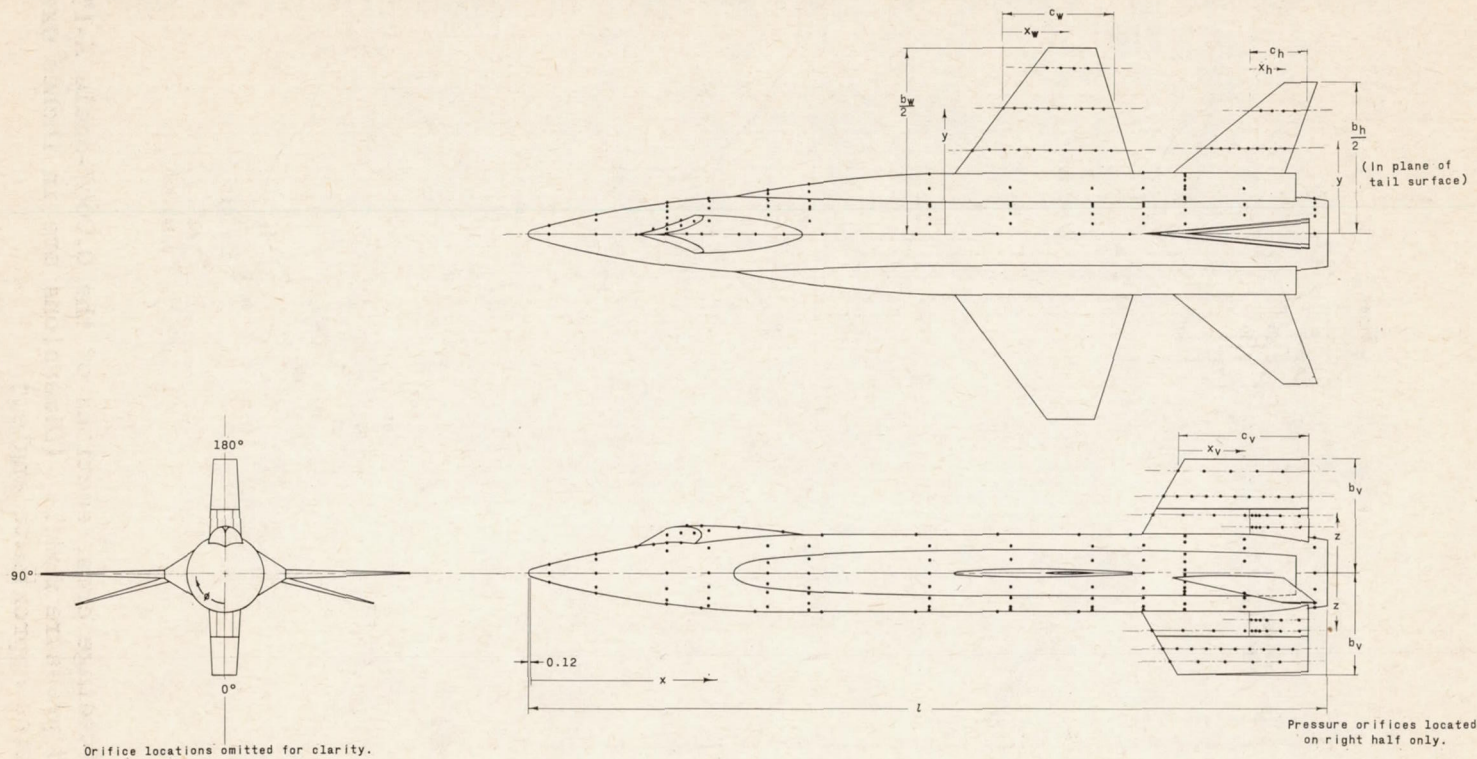


Figure 2.- Pressure orifice locations on the 0.0667-scale X-15 heat-transfer and pressure model.

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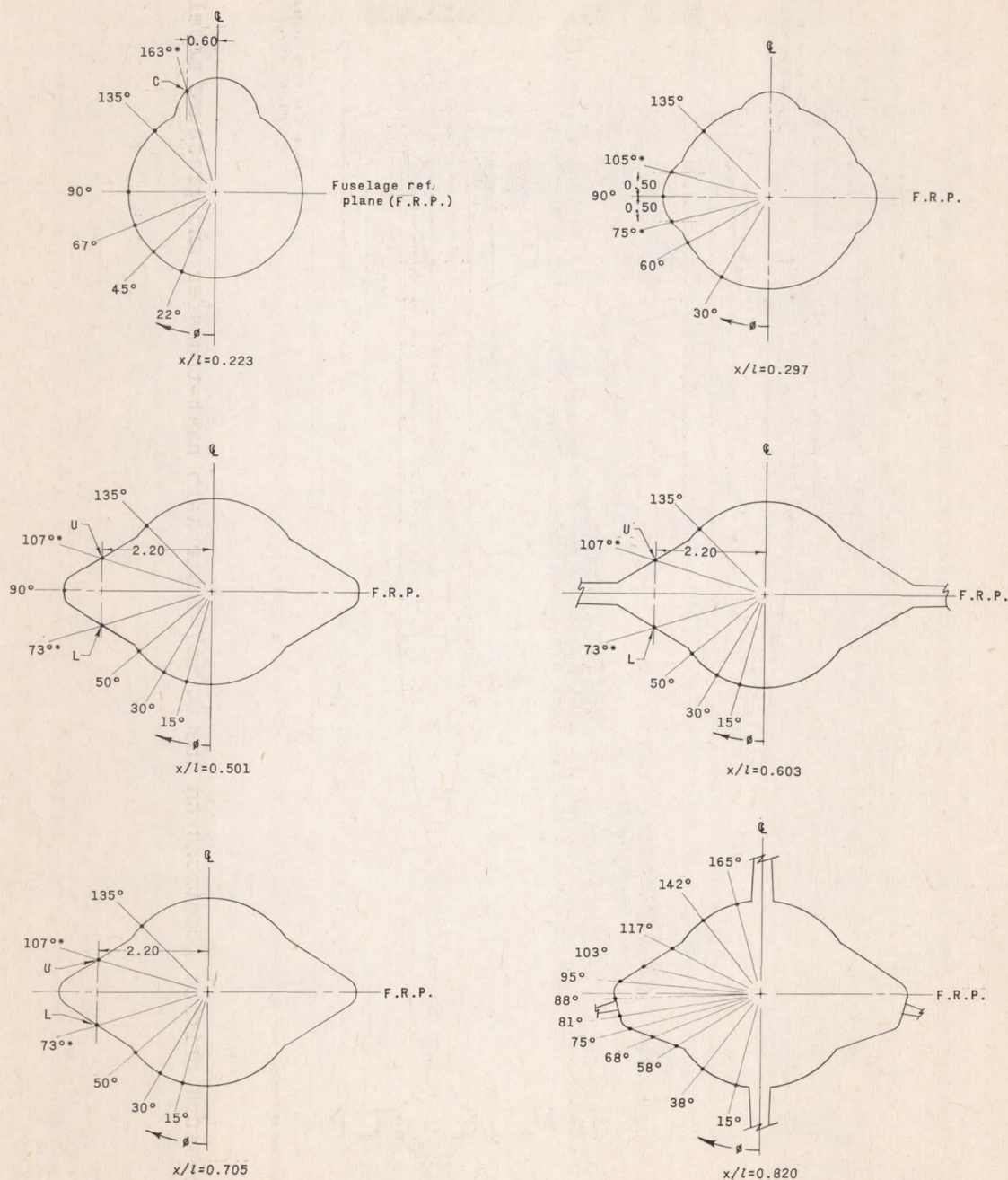


Figure 3.- Typical fuselage cross sections of the 0.0667-scale X-15 heat-transfer and pressure model. (Dimensions are in inches except as noted. \* denotes approximate angle.)



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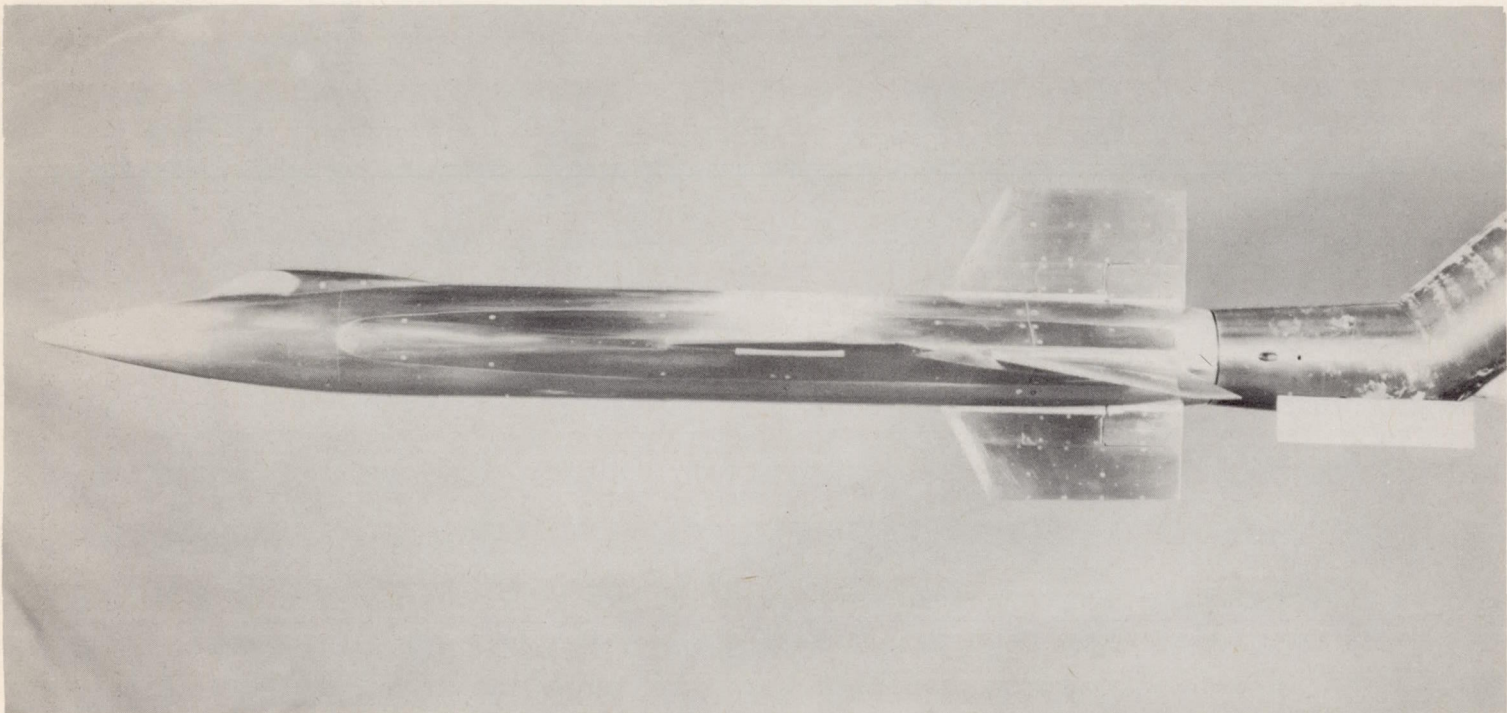


Figure 4.- View of 0.0667-scale heat-transfer and pressure model on sting support. L-58-2388

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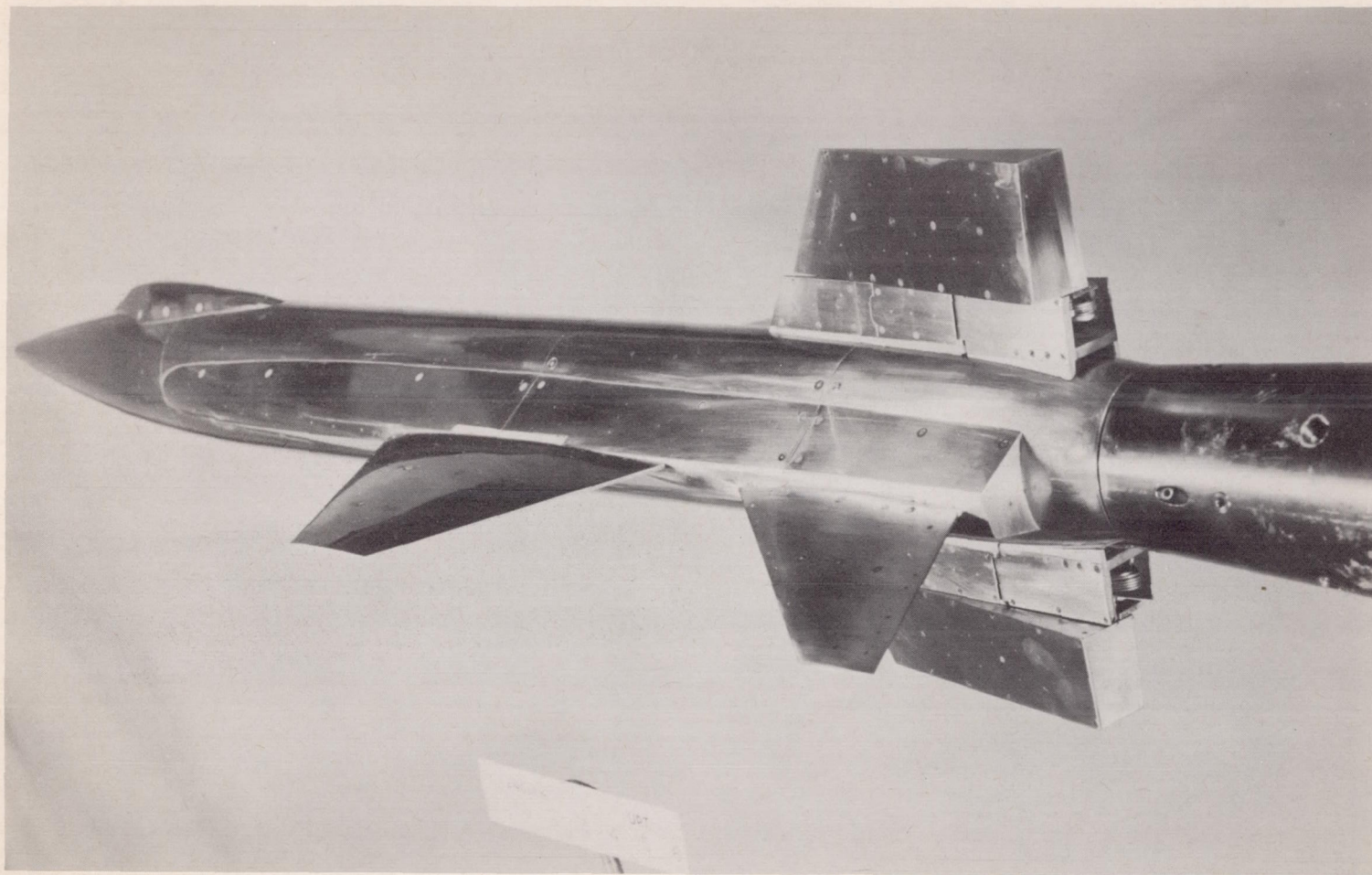


Figure 5.- Model with vertical and ventral fins deflected  $-7.5^{\circ}$ . L-58-2387

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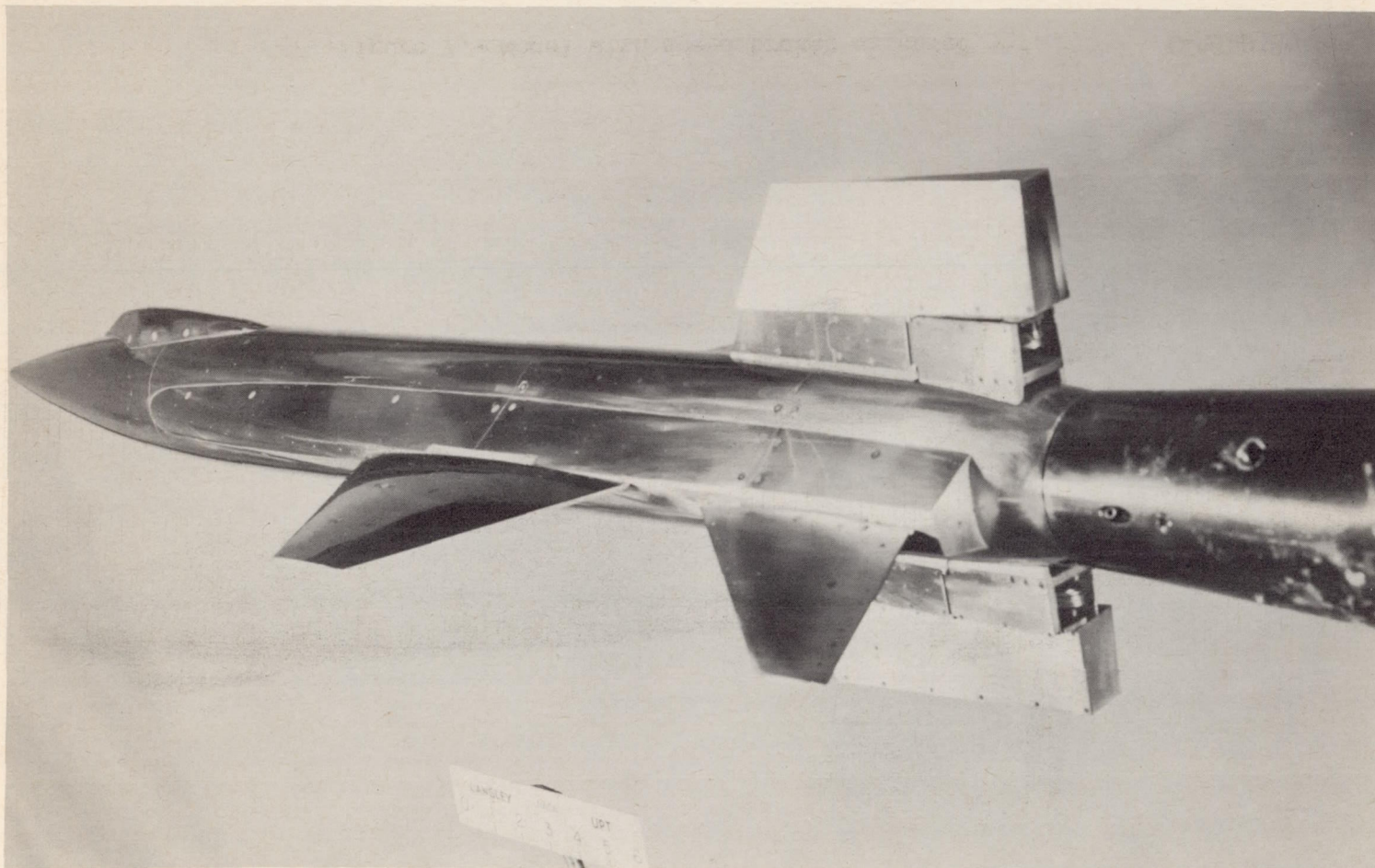


Figure 6.- Model with vertical and ventral fins deflected  $7.5^\circ$ . L-58-2390

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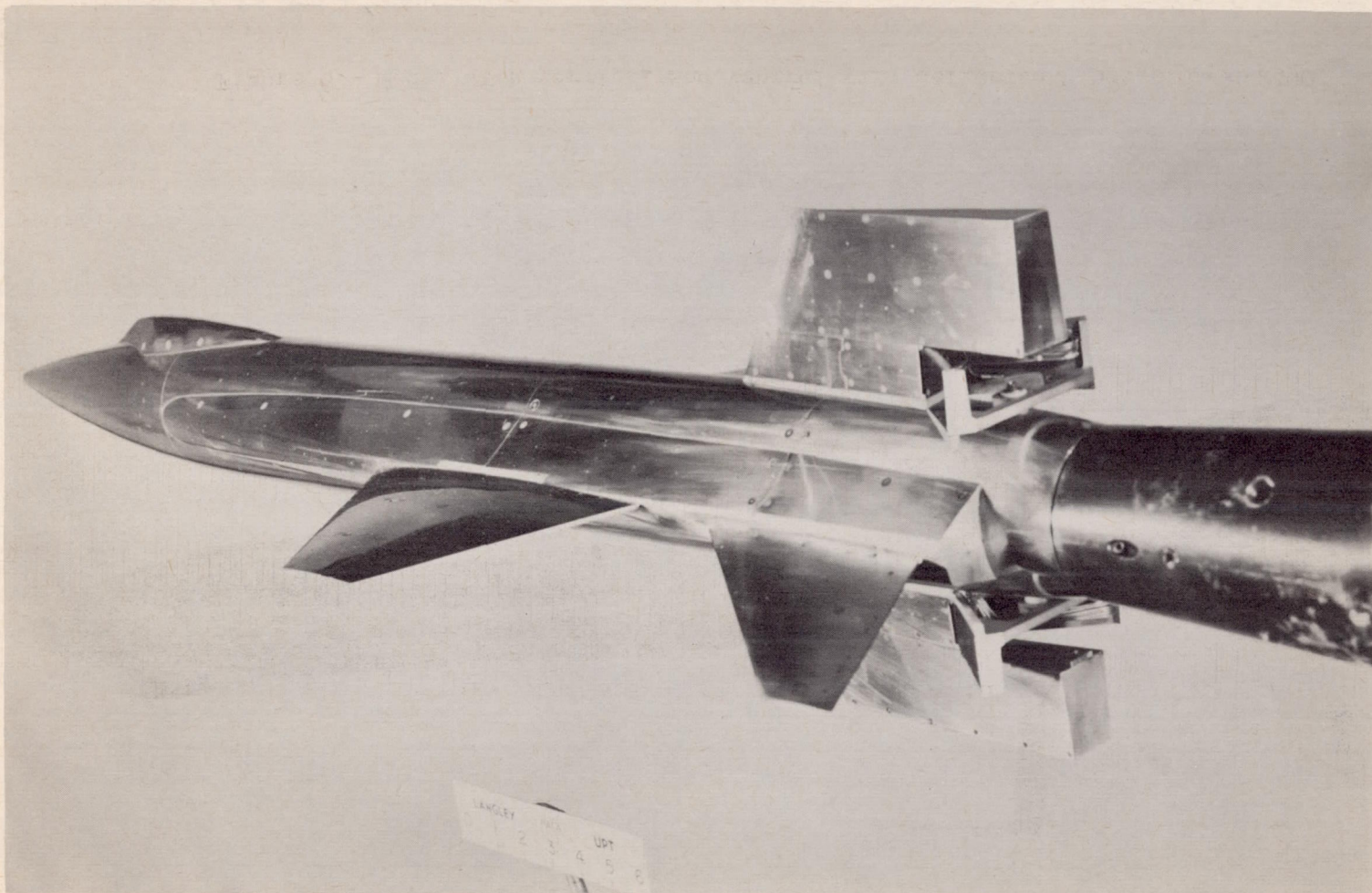
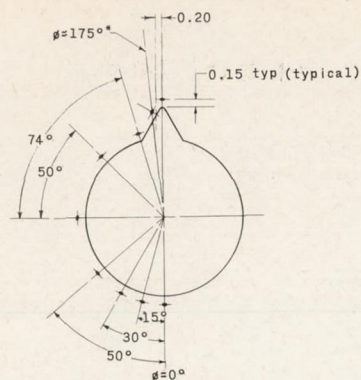


Figure 7.- Model with speed brakes extended 35°.

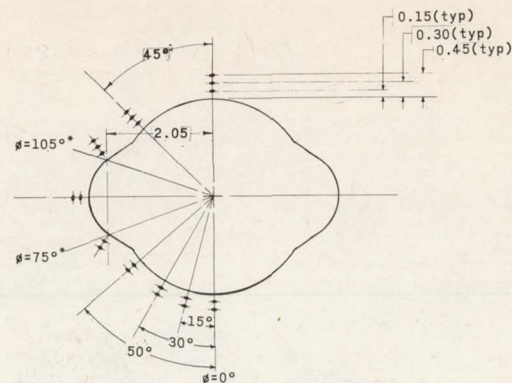
L-58-2389

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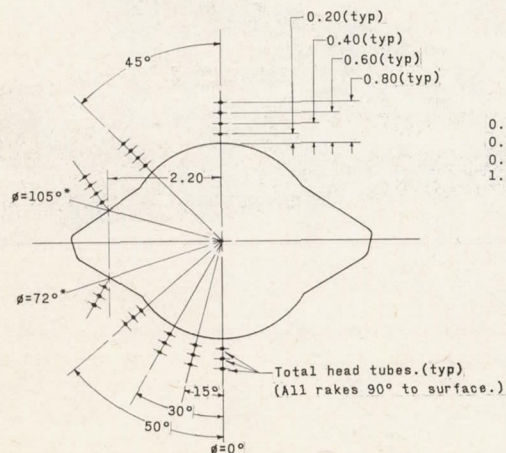




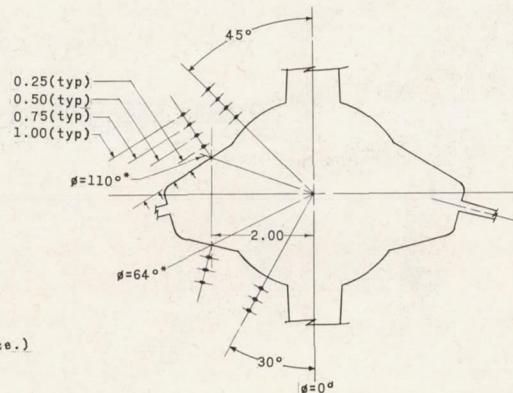
(a)  $x/l = 0.170$ .



(b)  $x/l = 0.348$ .



(c)  $x/l = 0.752$ .

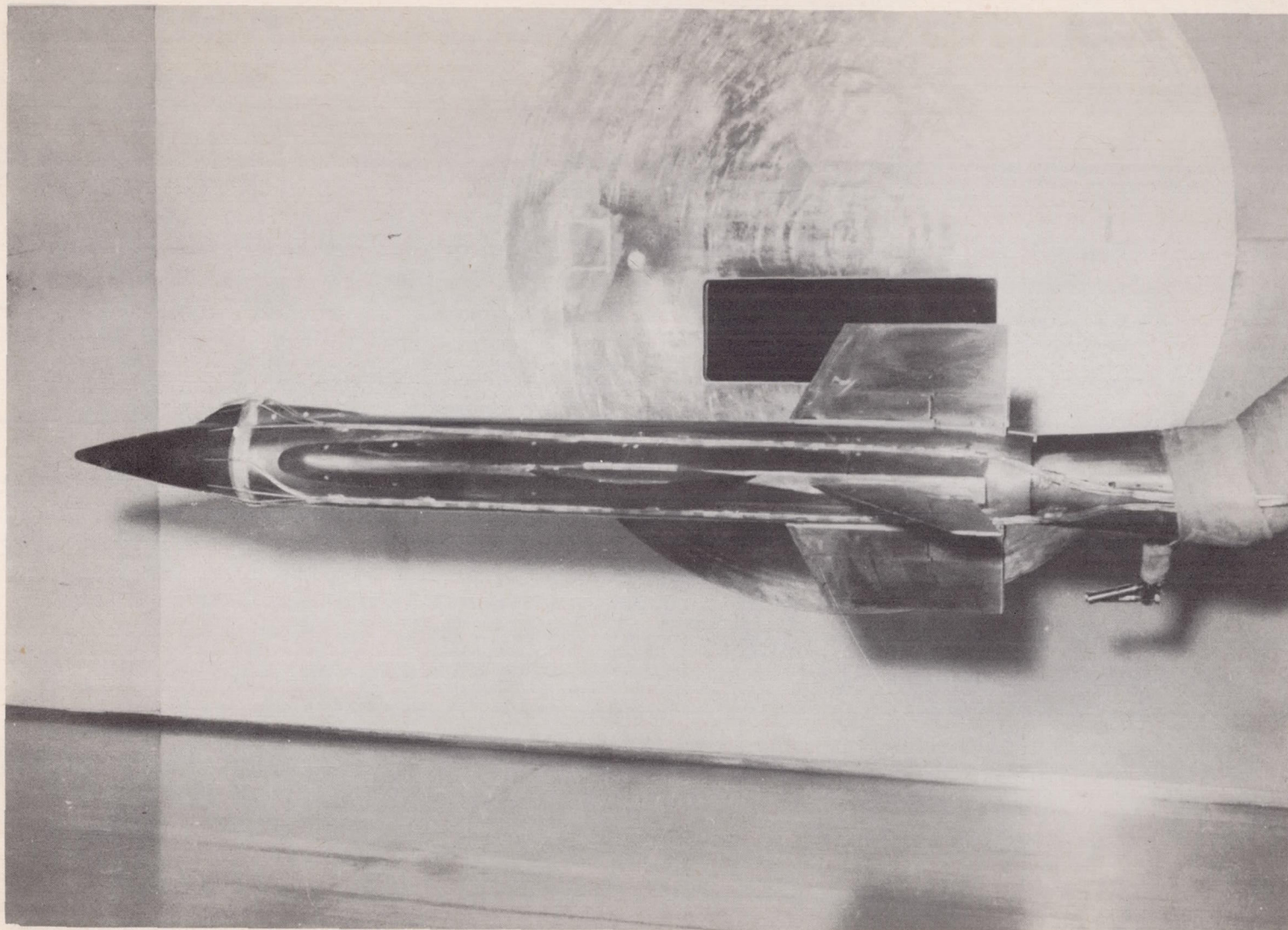


(d)  $x/l = 0.910$ .

Figure 8.- Fuselage cross sections at boundary-layer-rake positions on the 0.0667 scale X-15 heat-transfer and pressure model. (Dimensions are in inches except as noted. \* denotes approximate angle.)



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(a)  $x/l = 0.170$ .

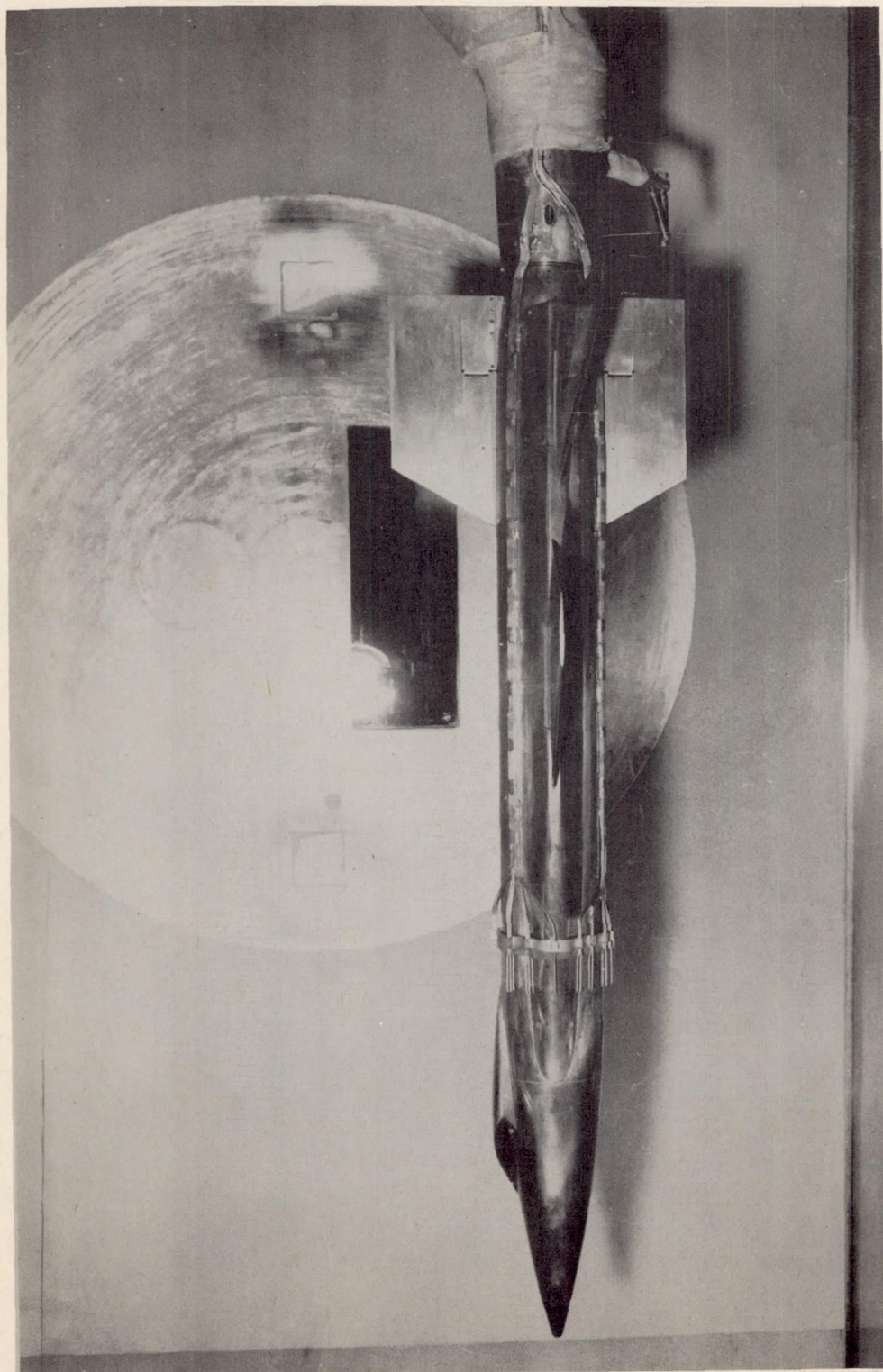
L-58-2484

Figure 9.- Total-pressure rakes at three axial stations on the fuselage.

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L-58-2485

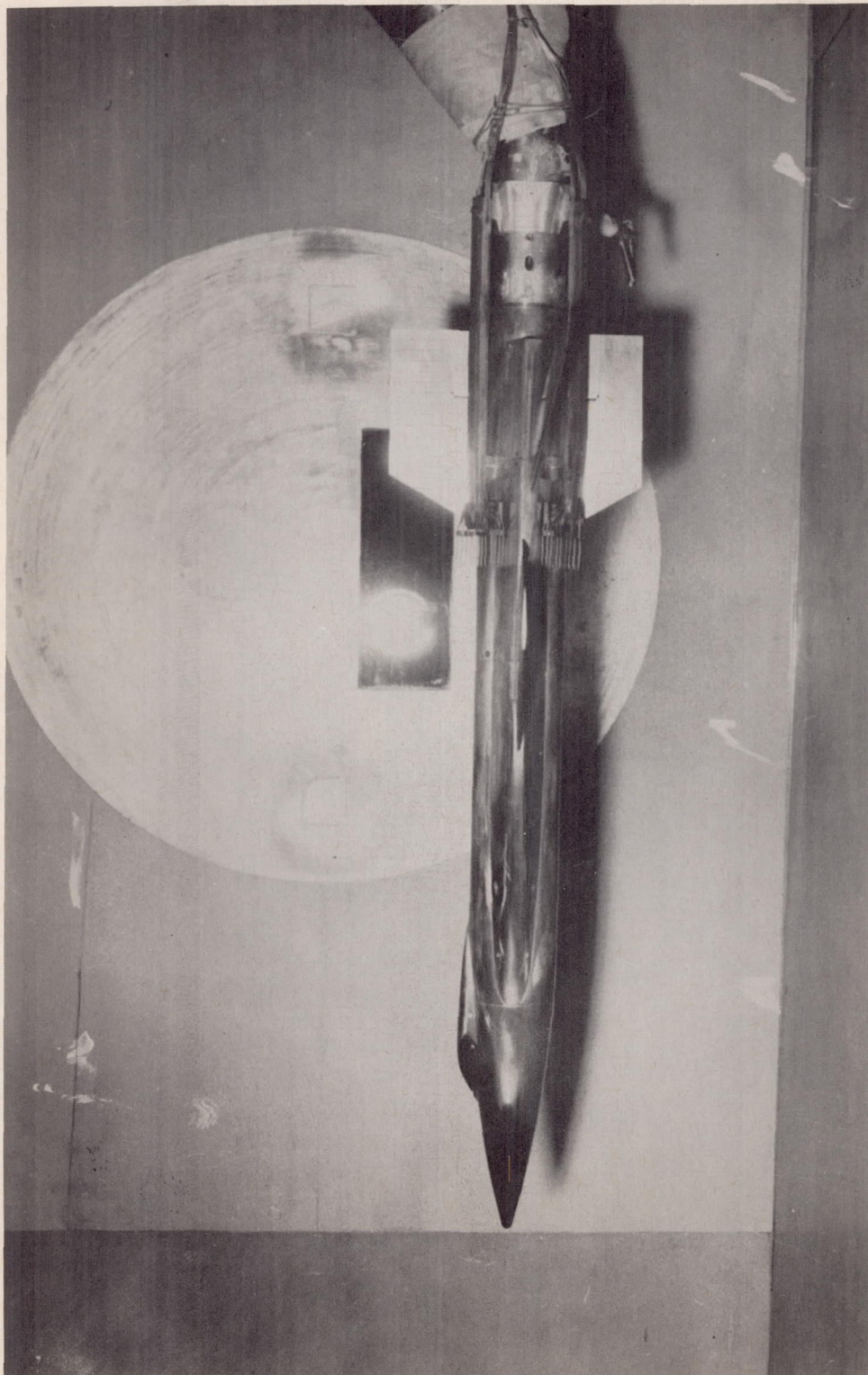
(b)  $x/l = 0.348$ .

Figure 9.- Continued.

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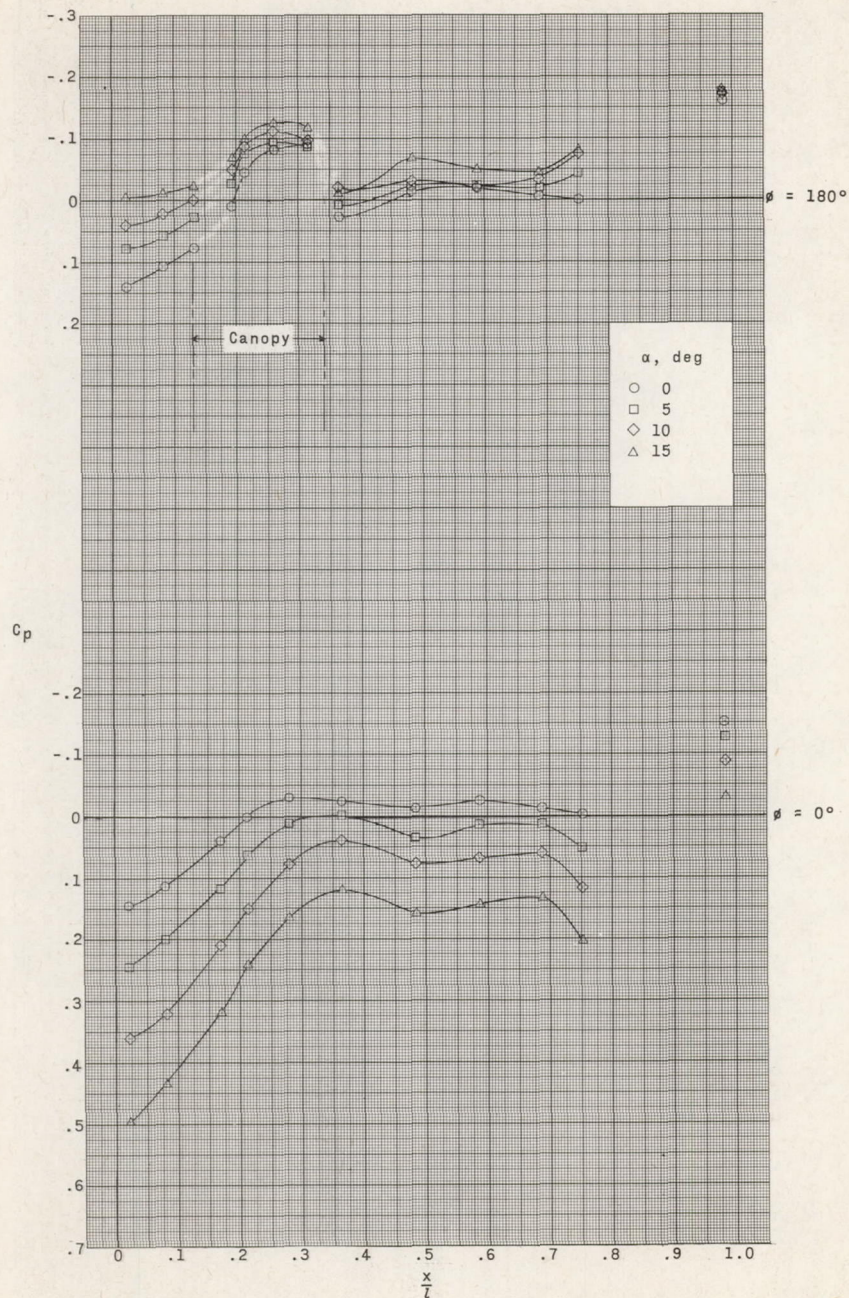
(c)  $x/l = 0.752$ .

Figure 9.- Concluded.

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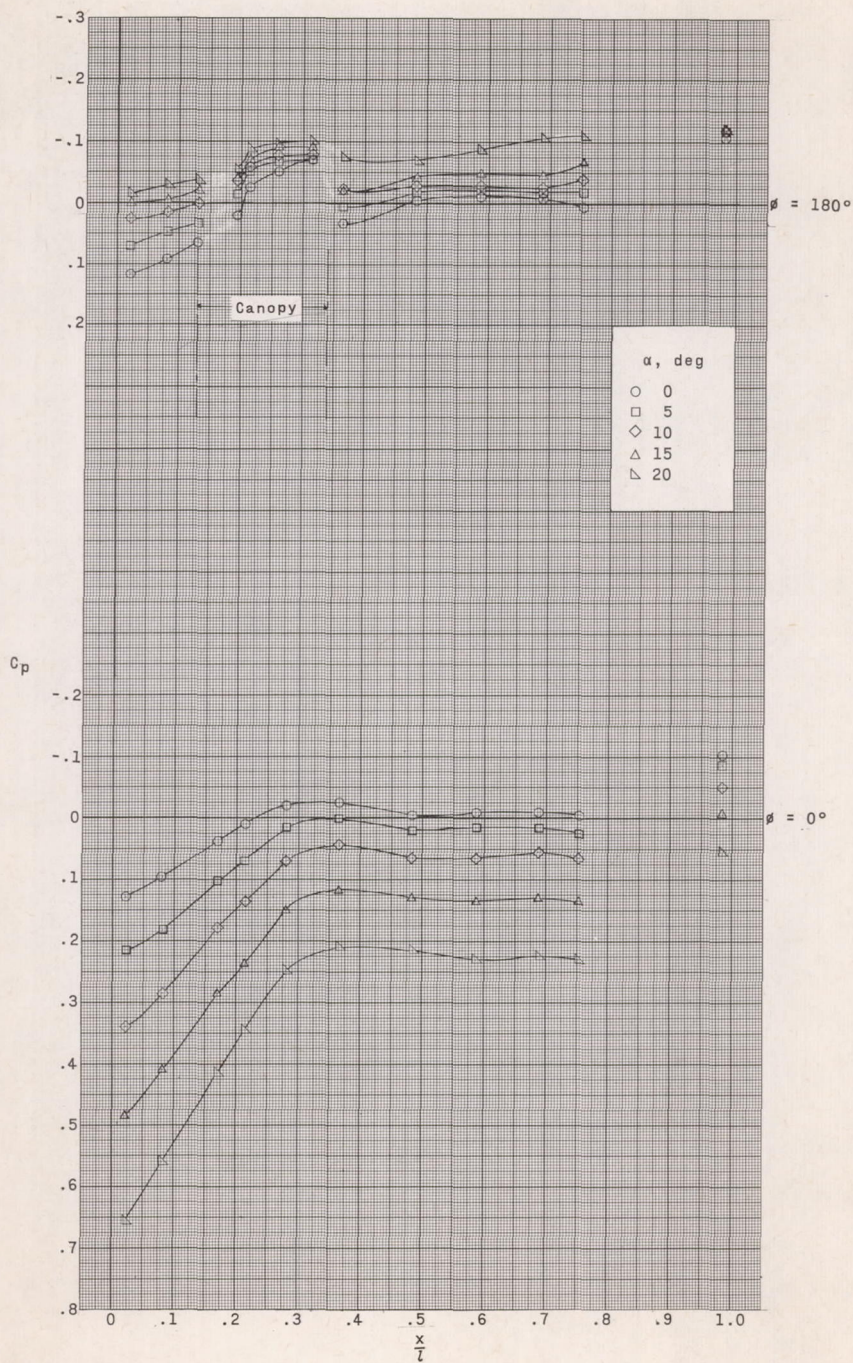




(a)  $M = 2.30$ .

Figure 10.- Effect of angle of attack on pressure distribution of fuselage.  $\beta = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

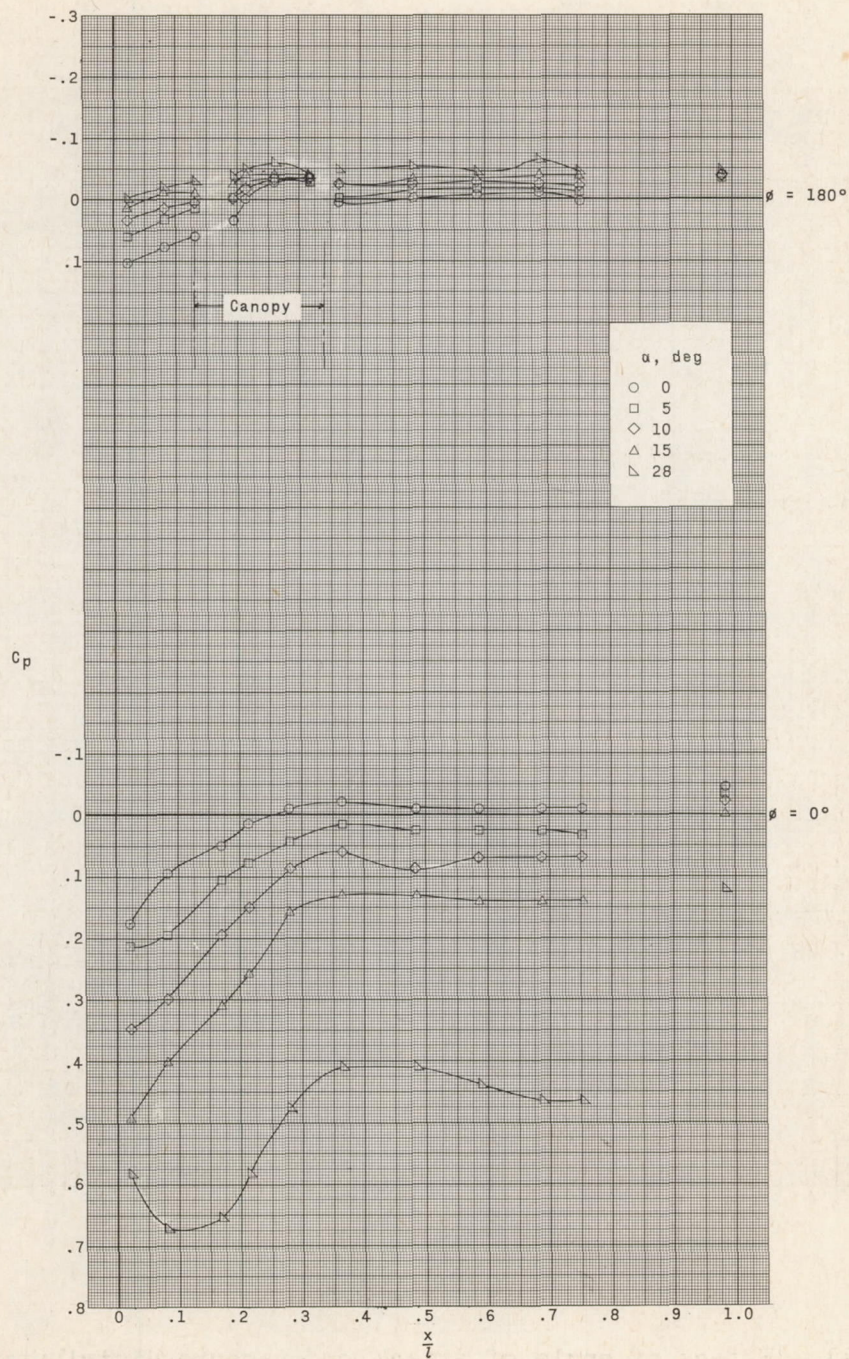




(b)  $M = 2.88$ .

Figure 10.- Continued.

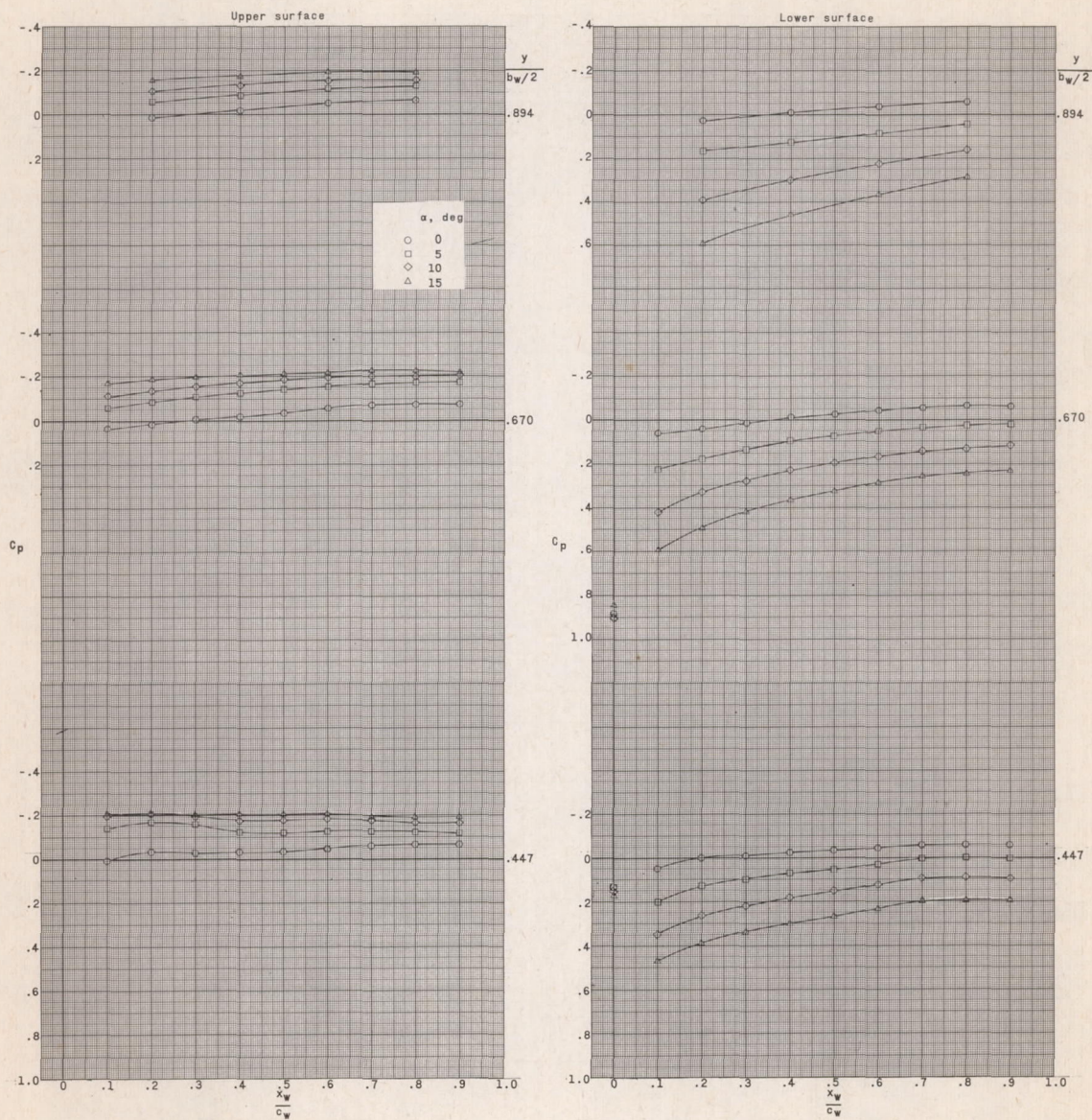




(c)  $M = 4.65$ .

Figure 10.- Concluded.

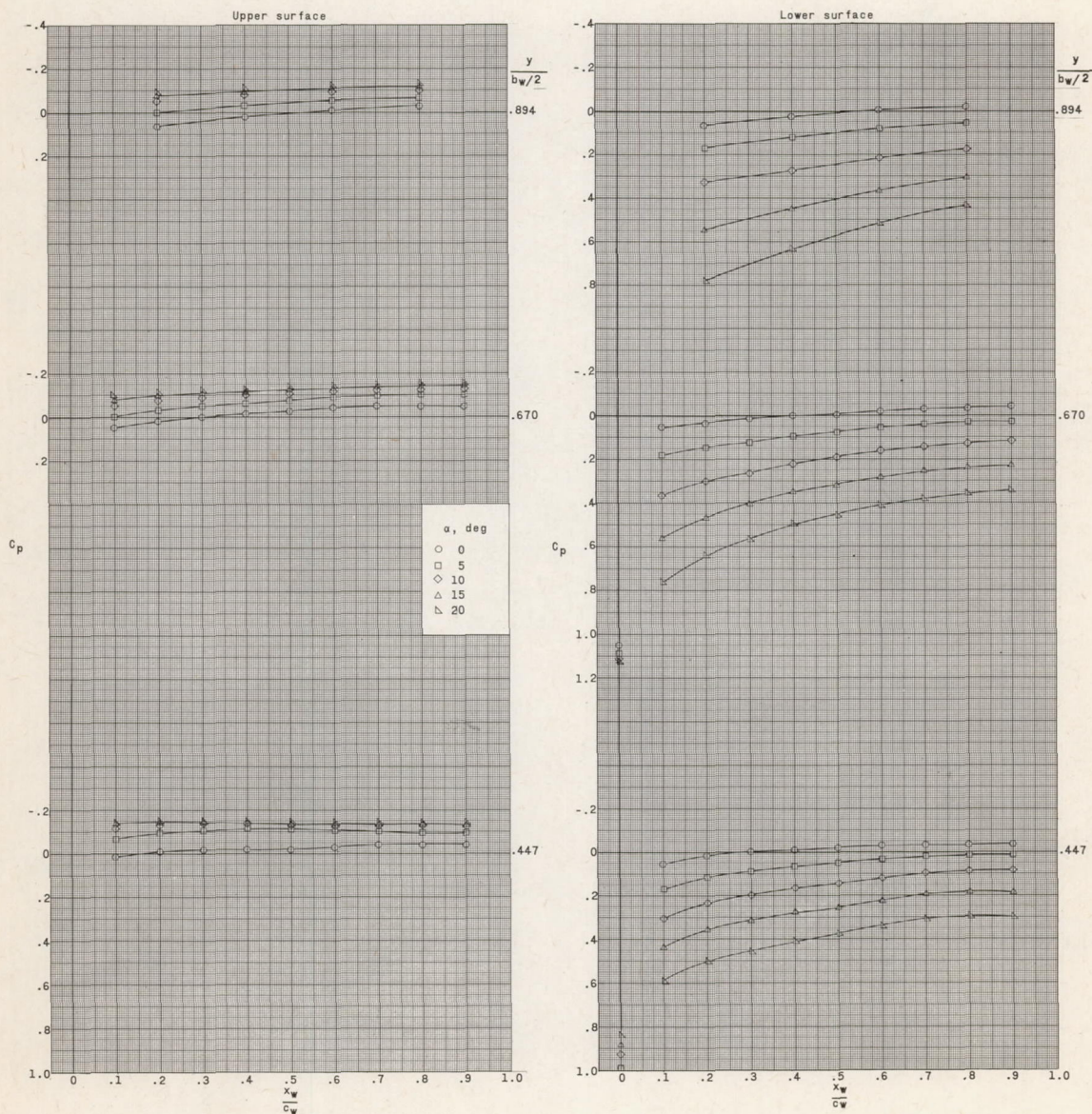




(a)  $M = 2.30$ .

Figure 11.- Effect of angle of attack on pressure distribution of wing.  
 $\beta = 0^\circ$ .



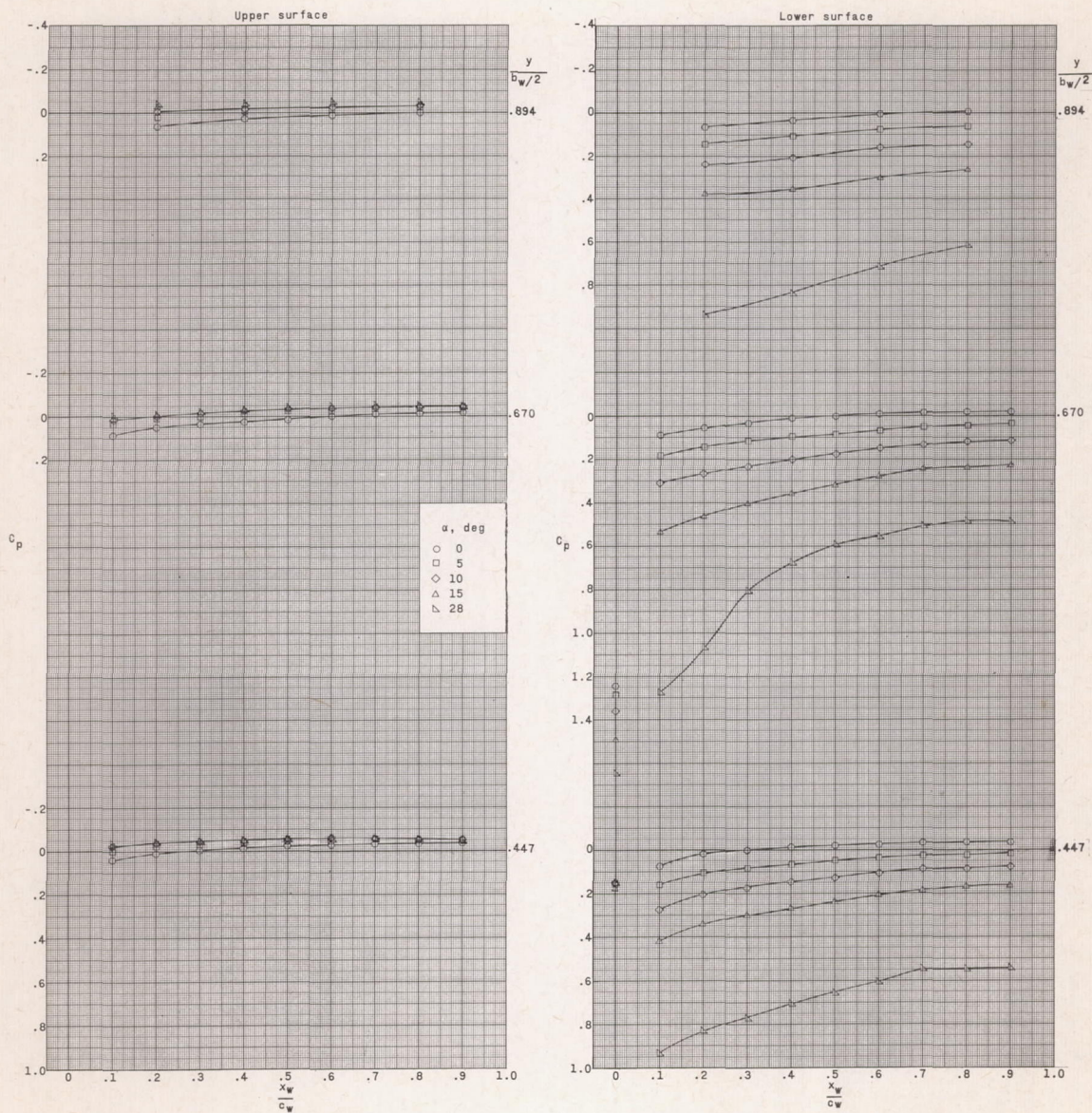


(b)  $M = 2.88$ .

Figure 11.- Continued.



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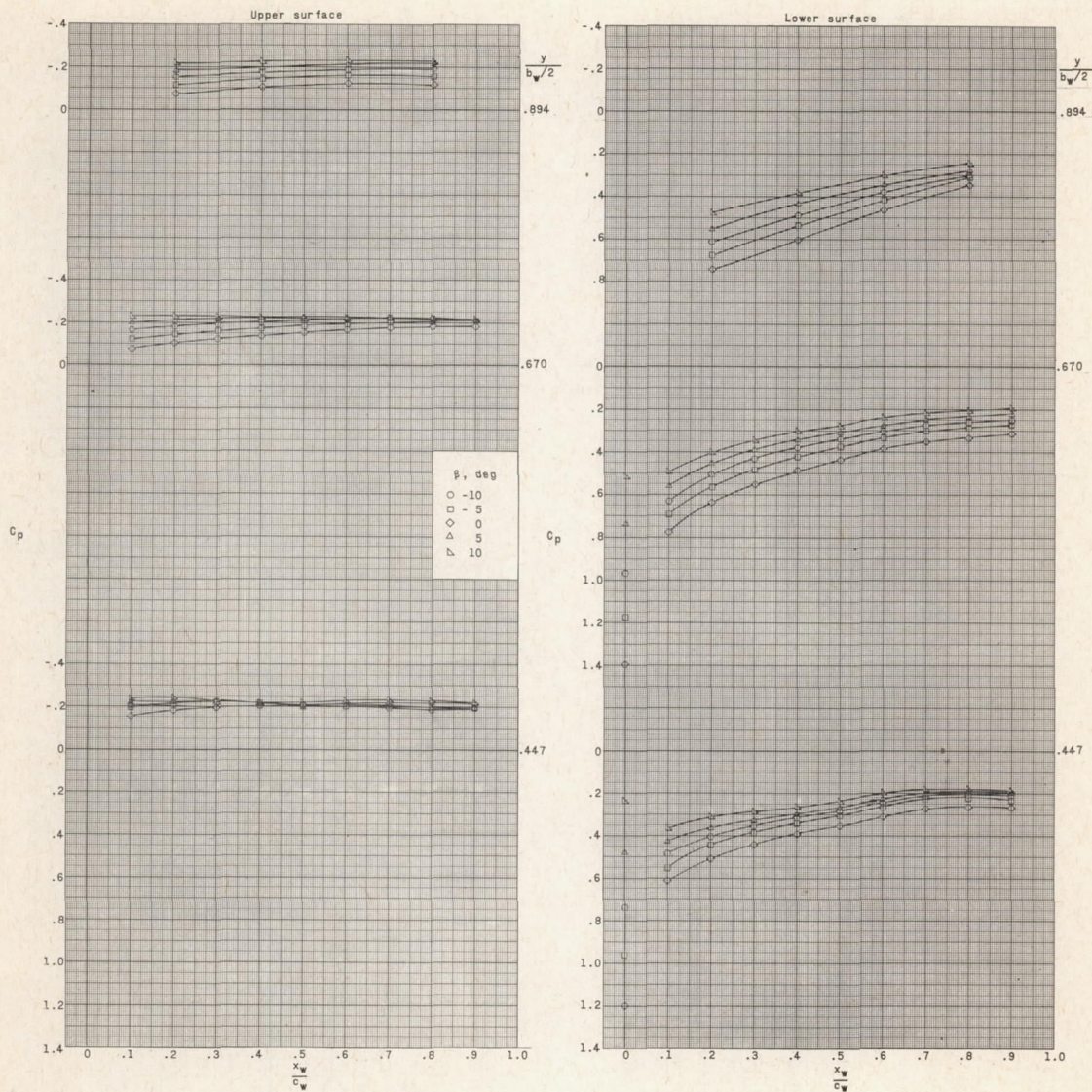


(c)  $M = 4.65$ .

Figure 11.- Concluded.

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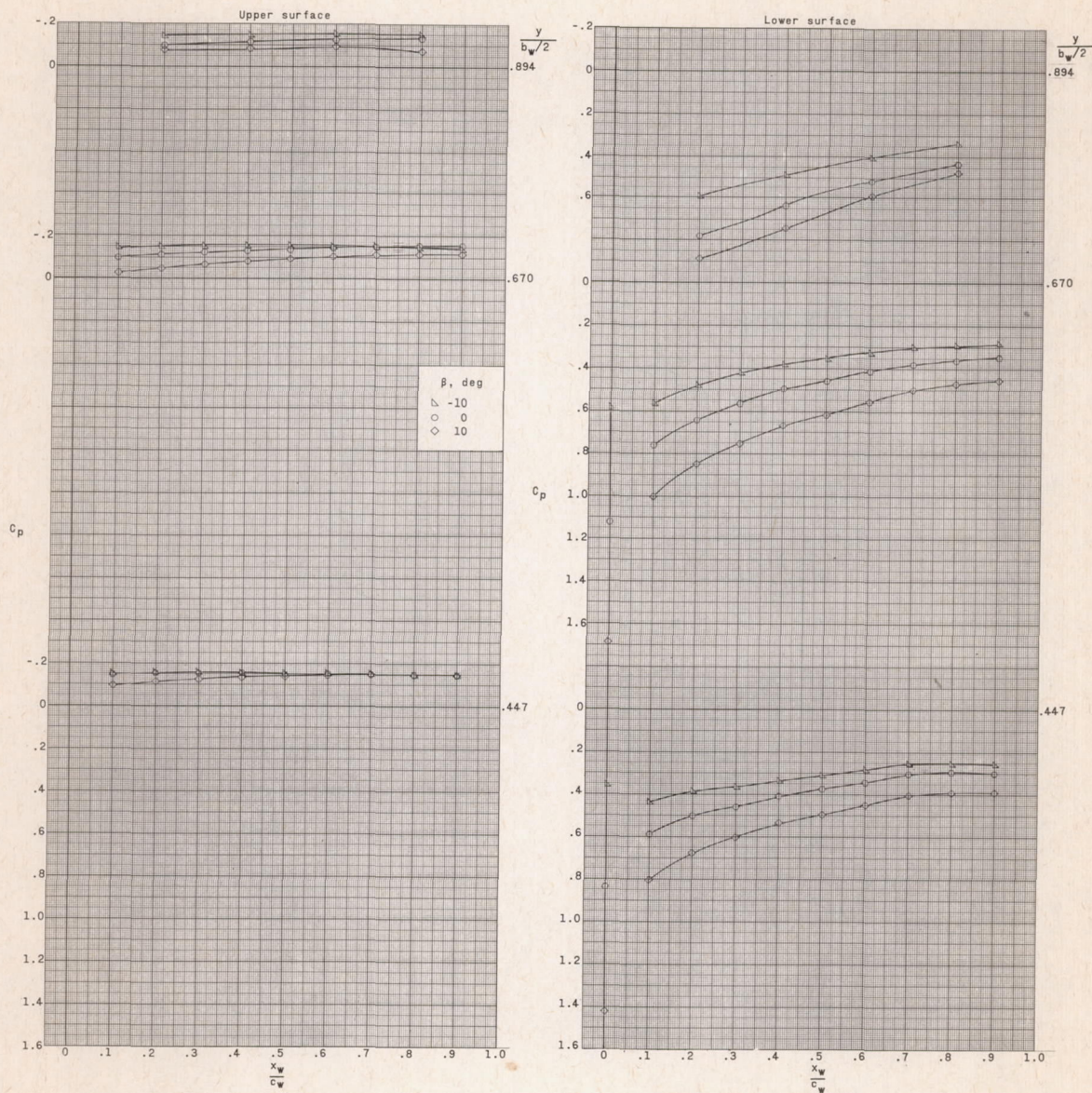




(a)  $M = 2.30$ ;  $\alpha = 15^\circ$ .

Figure 12.- Effect of sideslip on pressure distribution of wing at maximum angles of attack.

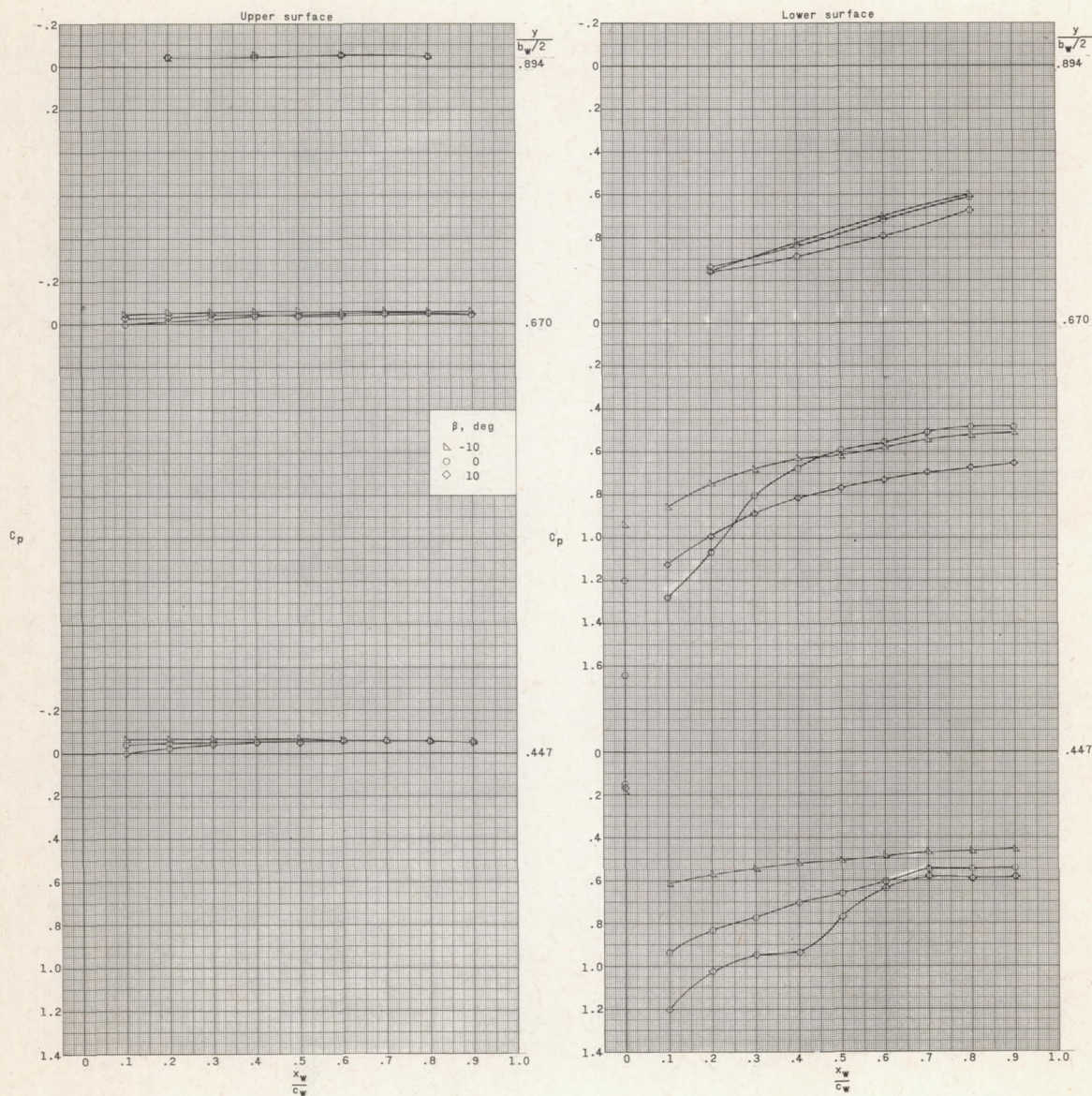




(b)  $M = 2.88$ ;  $\alpha = 20^\circ$ .

Figure 12.- Continued.



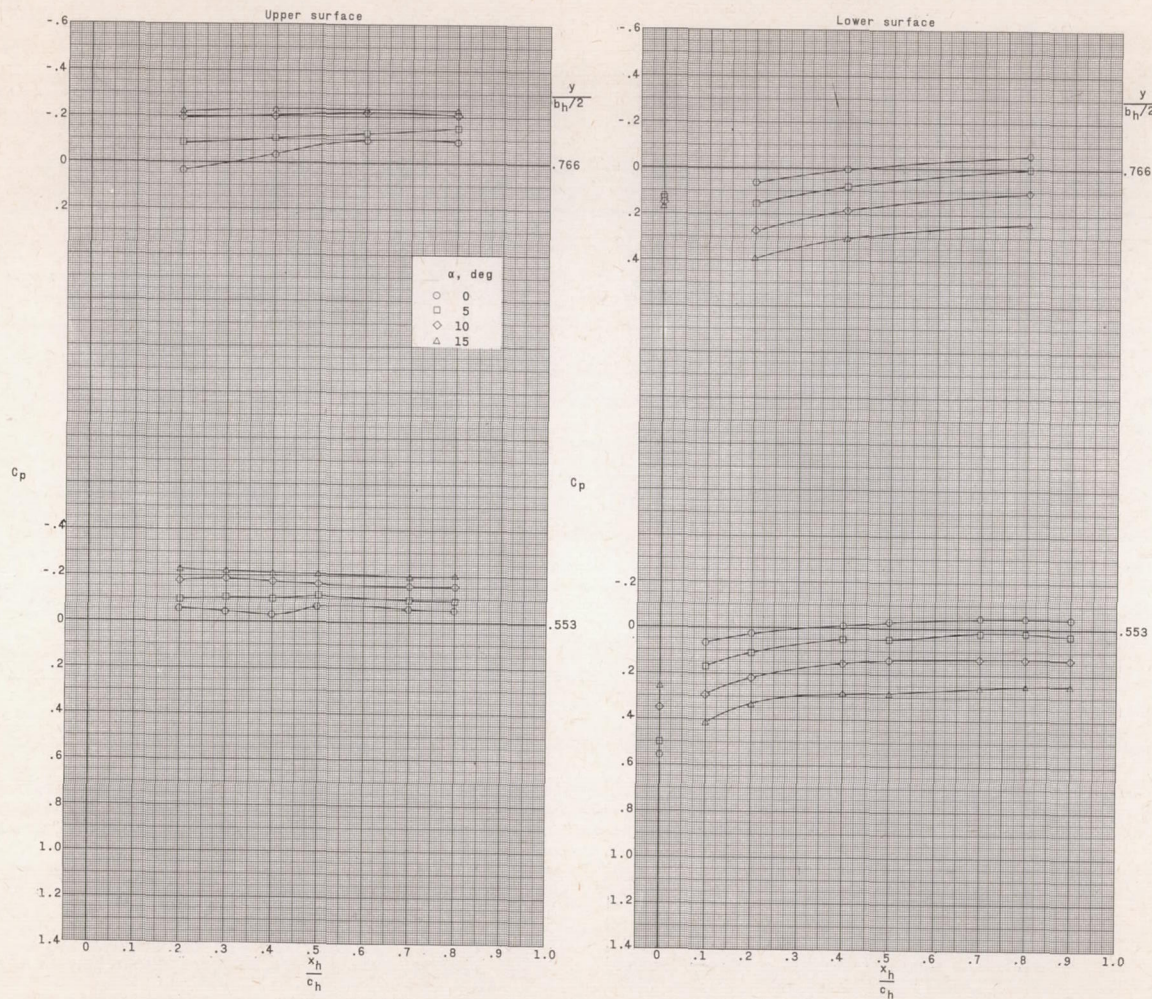


(c)  $M = 4.65$ ;  $\alpha = 28^\circ$ .

Figure 12.- Concluded.



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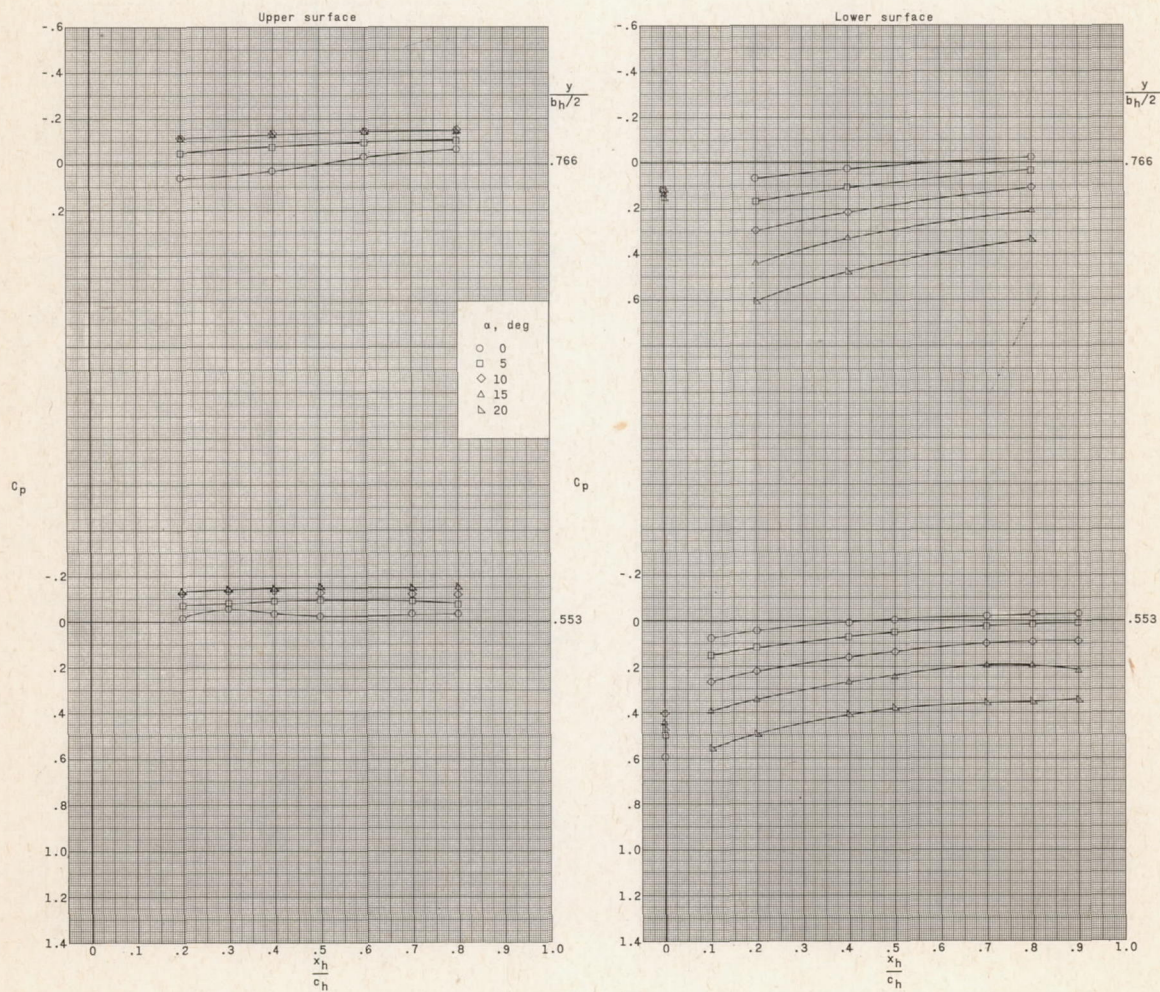


(a)  $M = 2.30$ .

Figure 13.- Effect of angle of attack on pressure distribution of horizontal tail.  
 $\beta = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

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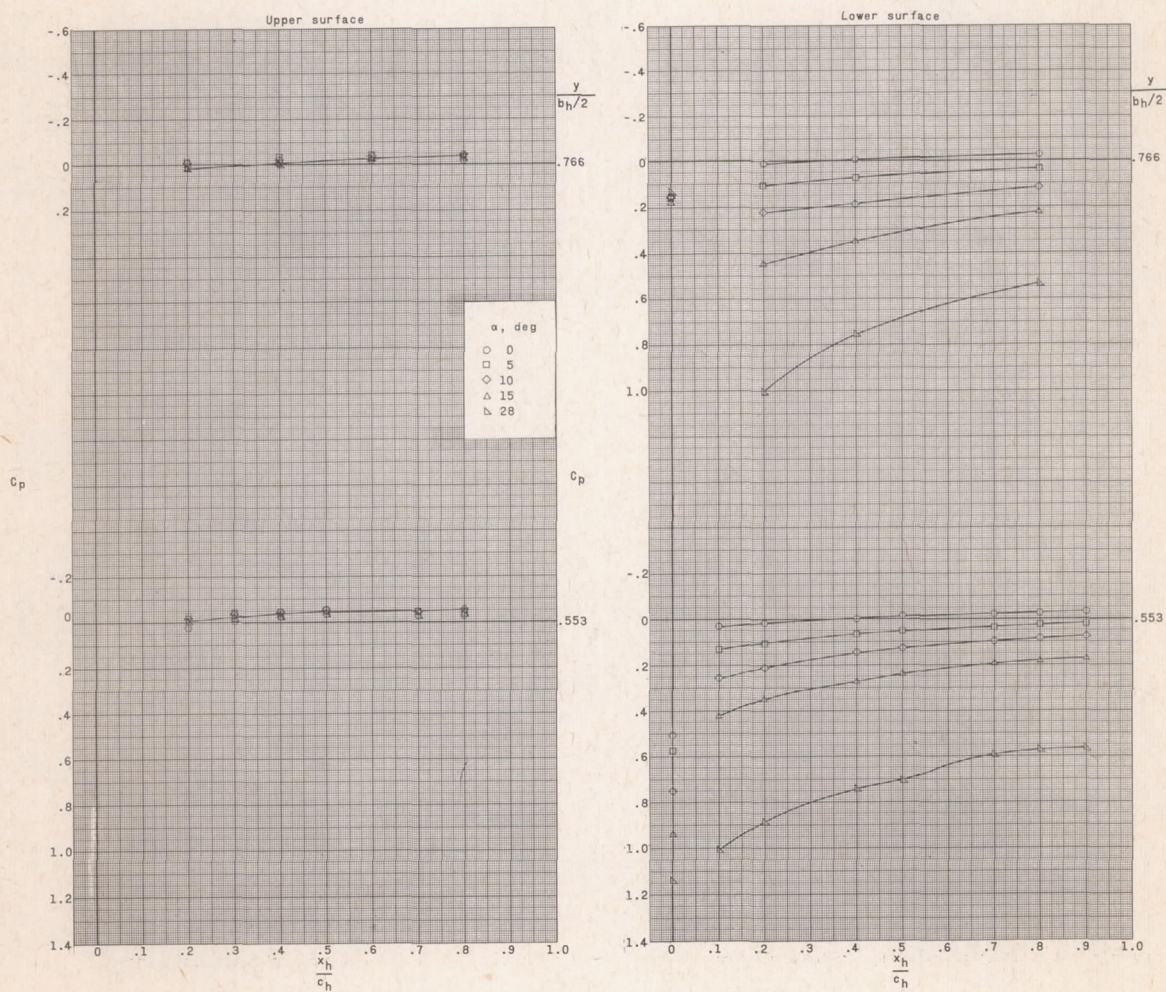




(b)  $M = 2.88$ .

Figure 13.- Continued.



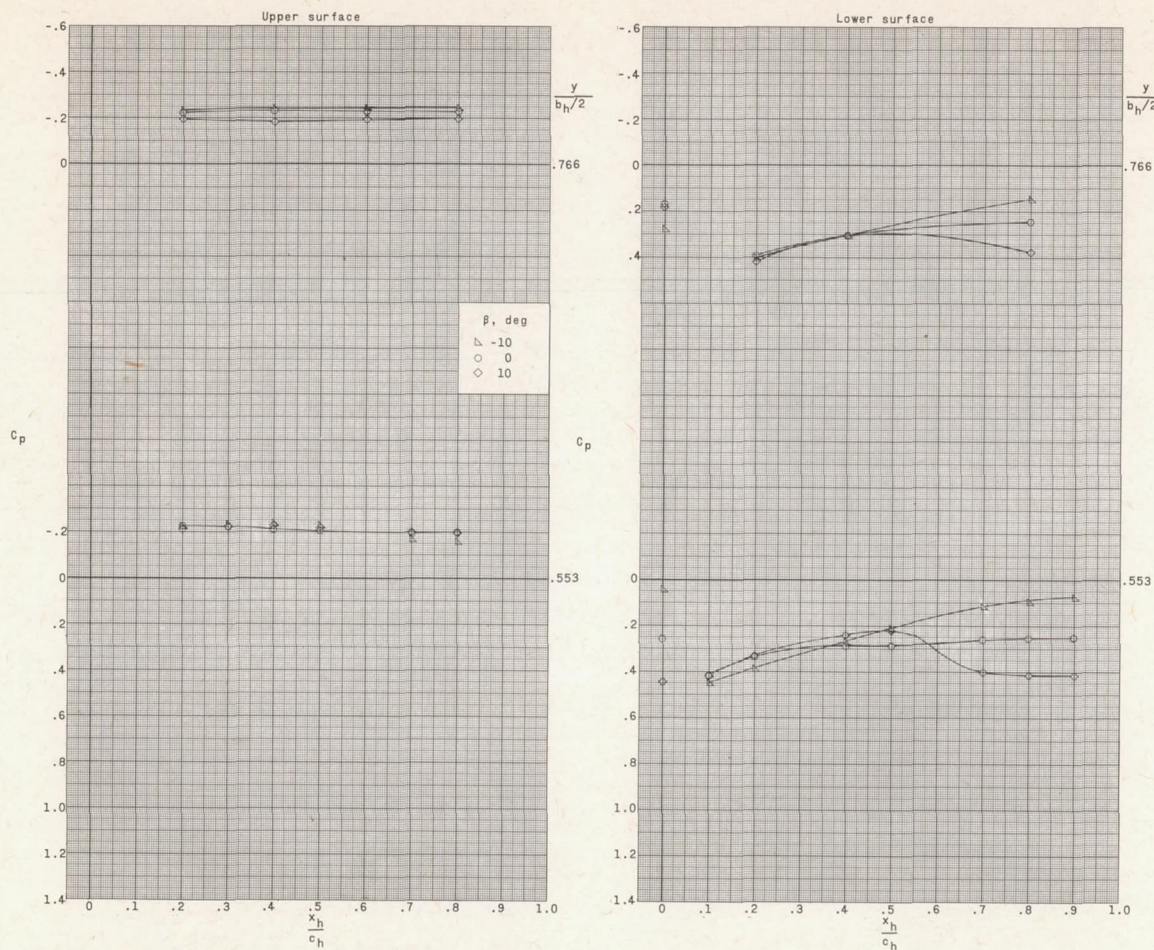


(c)  $M = 4.65$ .

Figure 13.- Concluded.



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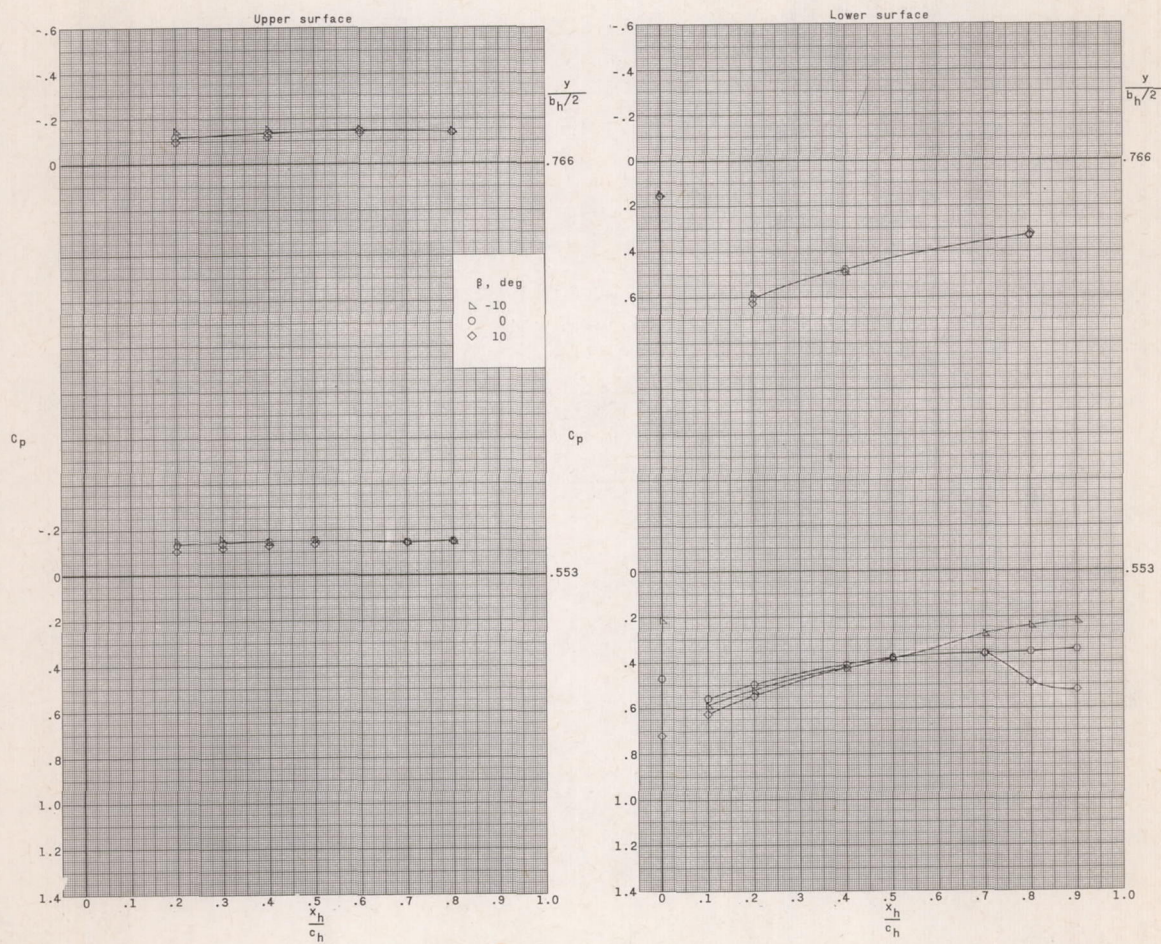


(a)  $M = 2.30$ ;  $\alpha = 15^\circ$ .

Figure 14.- Effect of angle of sideslip on pressure distribution of horizontal tail.  
 $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

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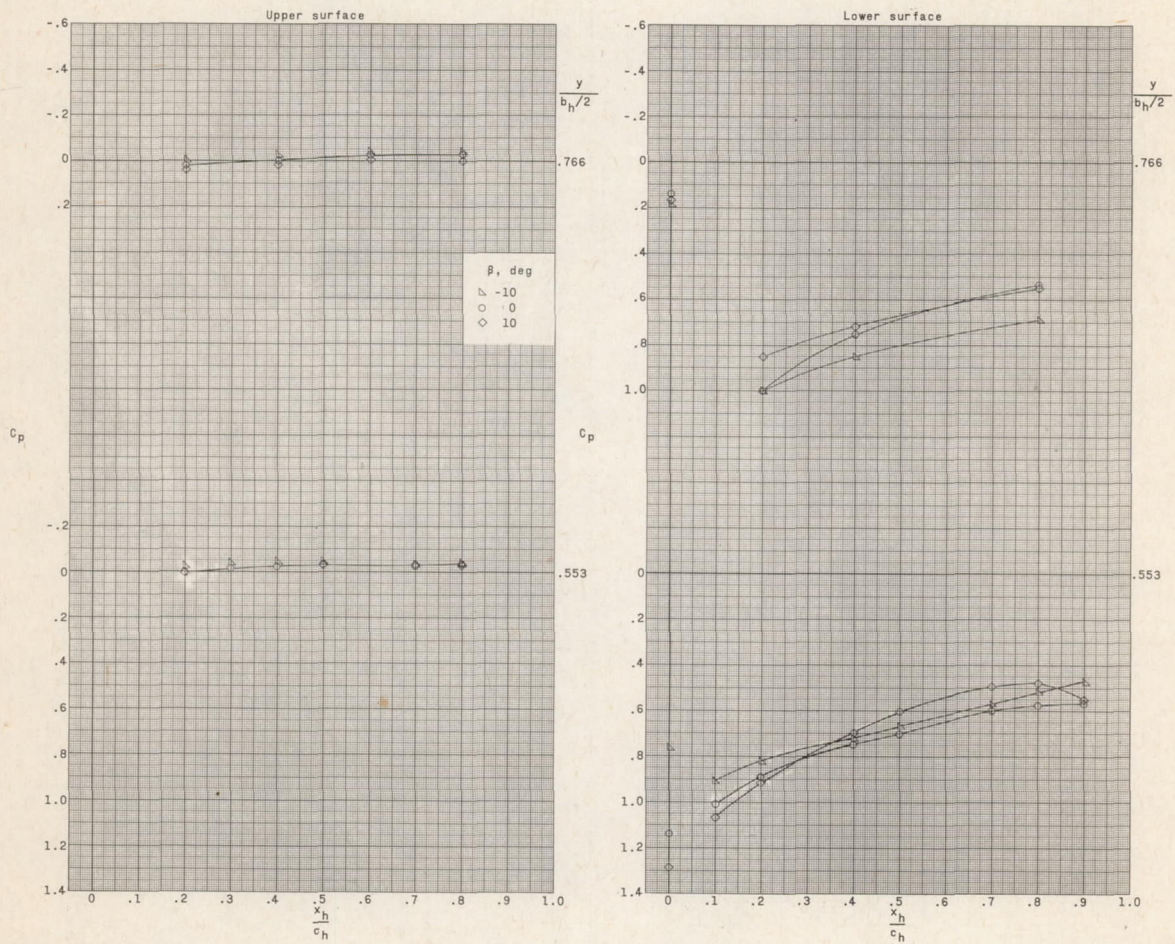




(b)  $M = 2.88; \alpha = 20^\circ$ .

Figure 14.- Continued.



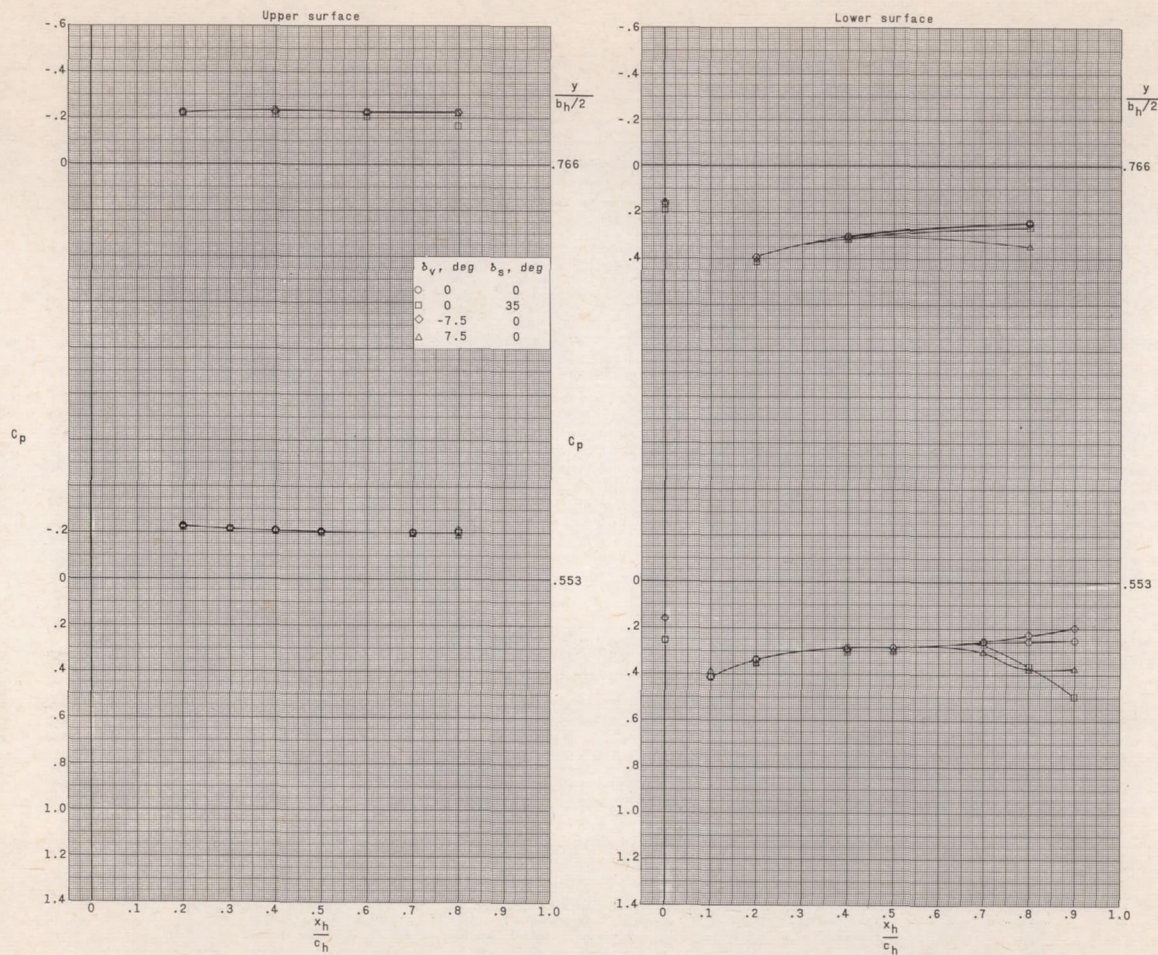


(c)  $M = 4.65$ ;  $\alpha = 28^\circ$ .

Figure 14.- Concluded.



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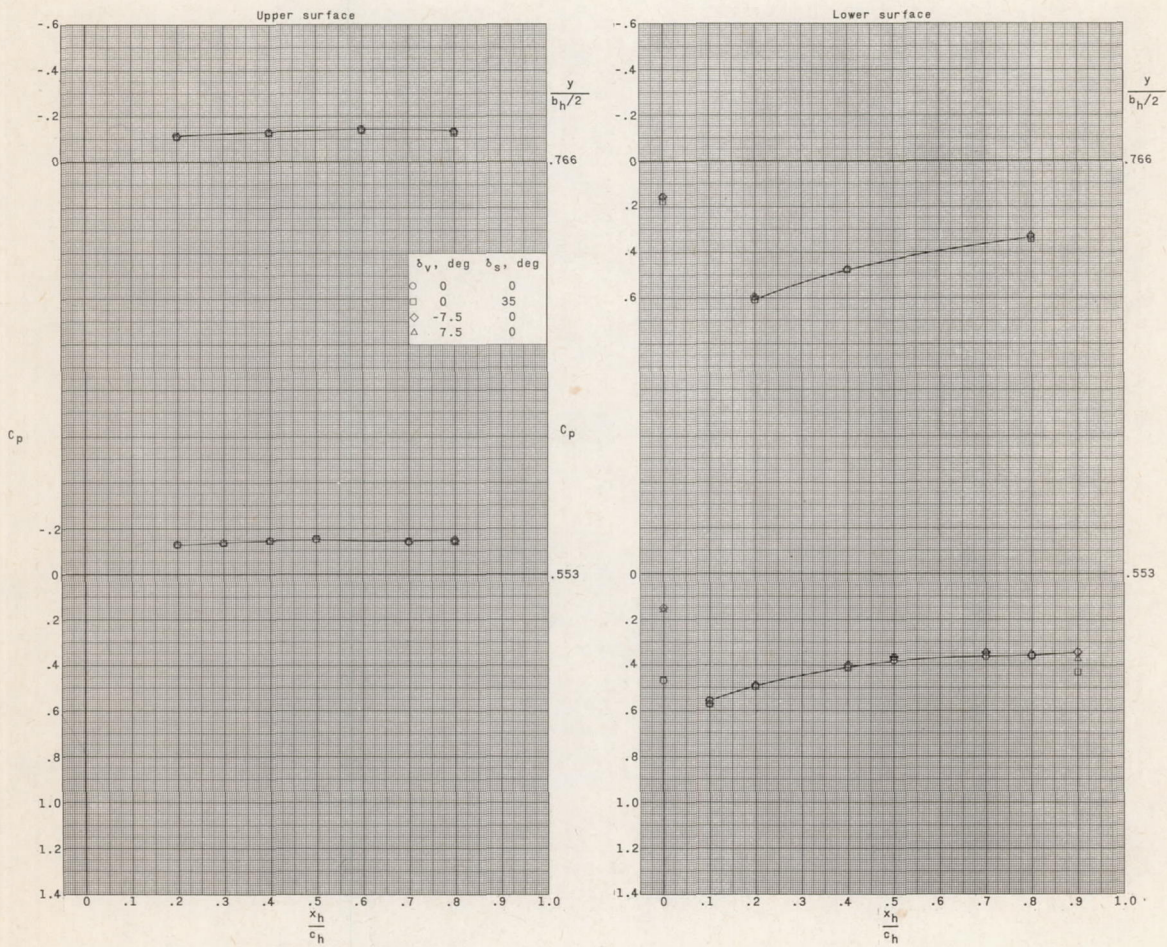


(a)  $M = 2.30$ ;  $\alpha = 15^\circ$ .

Figure 15.- Effect of vertical-tail deflections on pressure distribution of horizontal tail.  
 $\beta = 0^\circ$ .

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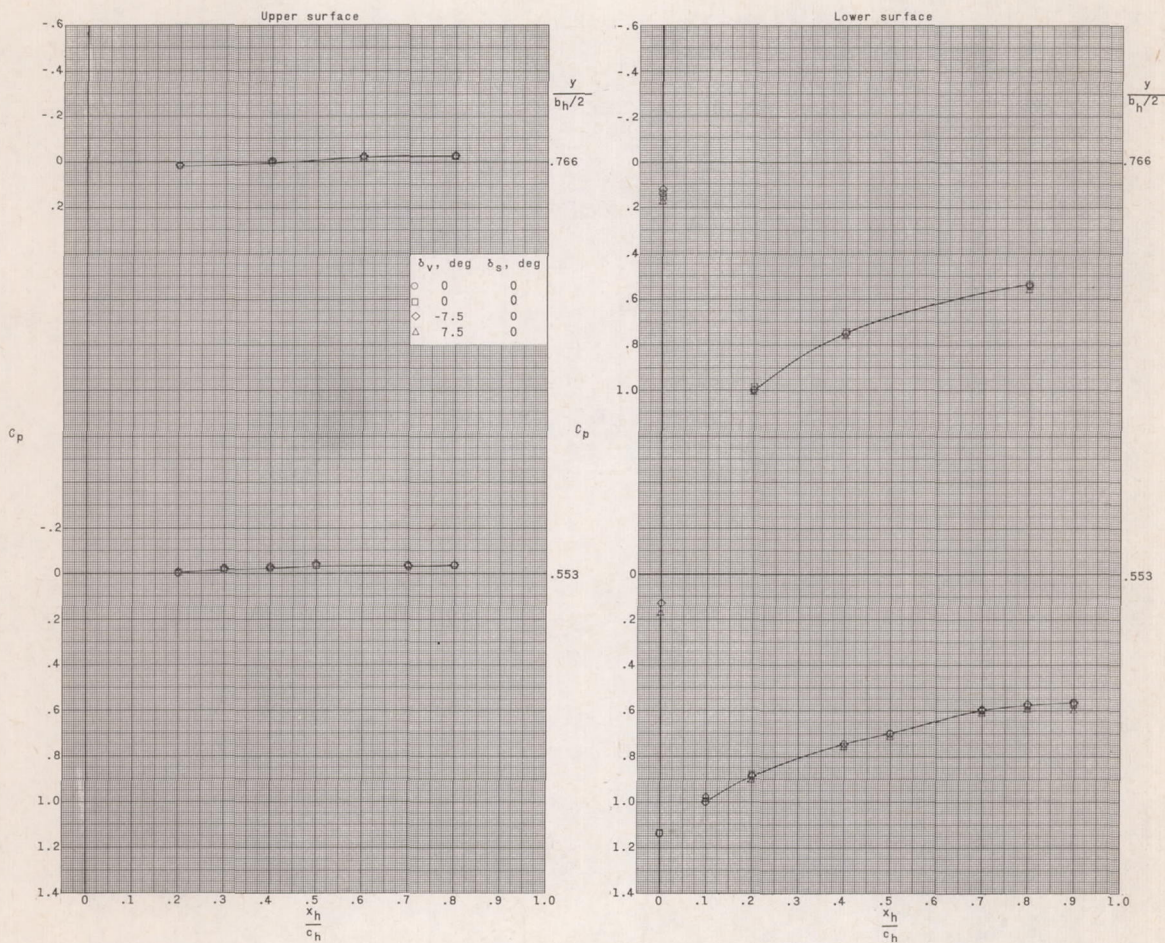




(b)  $M = 2.88$ ;  $\alpha = 20^\circ$ .

Figure 15.- Continued.



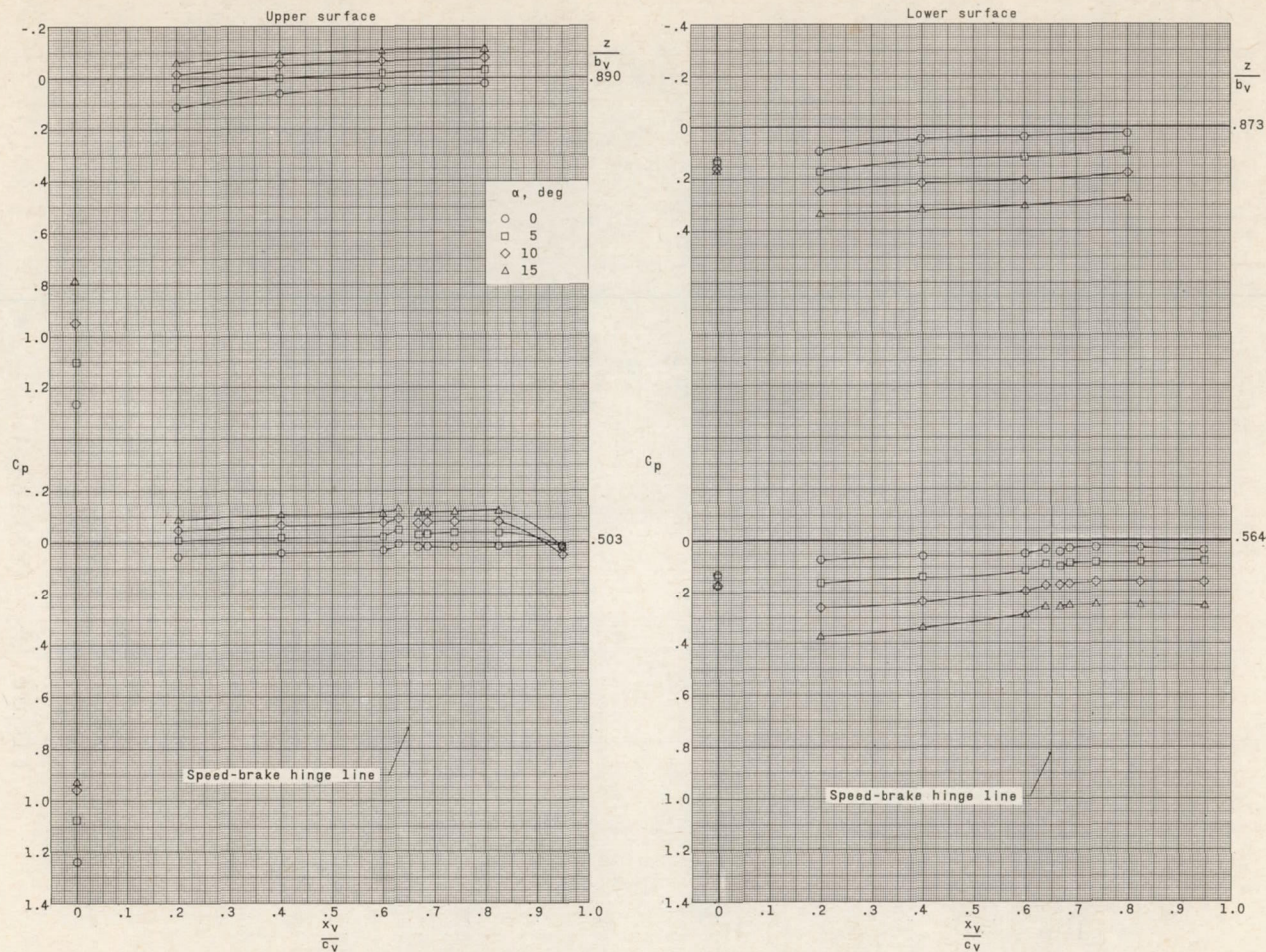


(c)  $M = 4.65$ ;  $\alpha = 28^\circ$ .

Figure 15.- Concluded.



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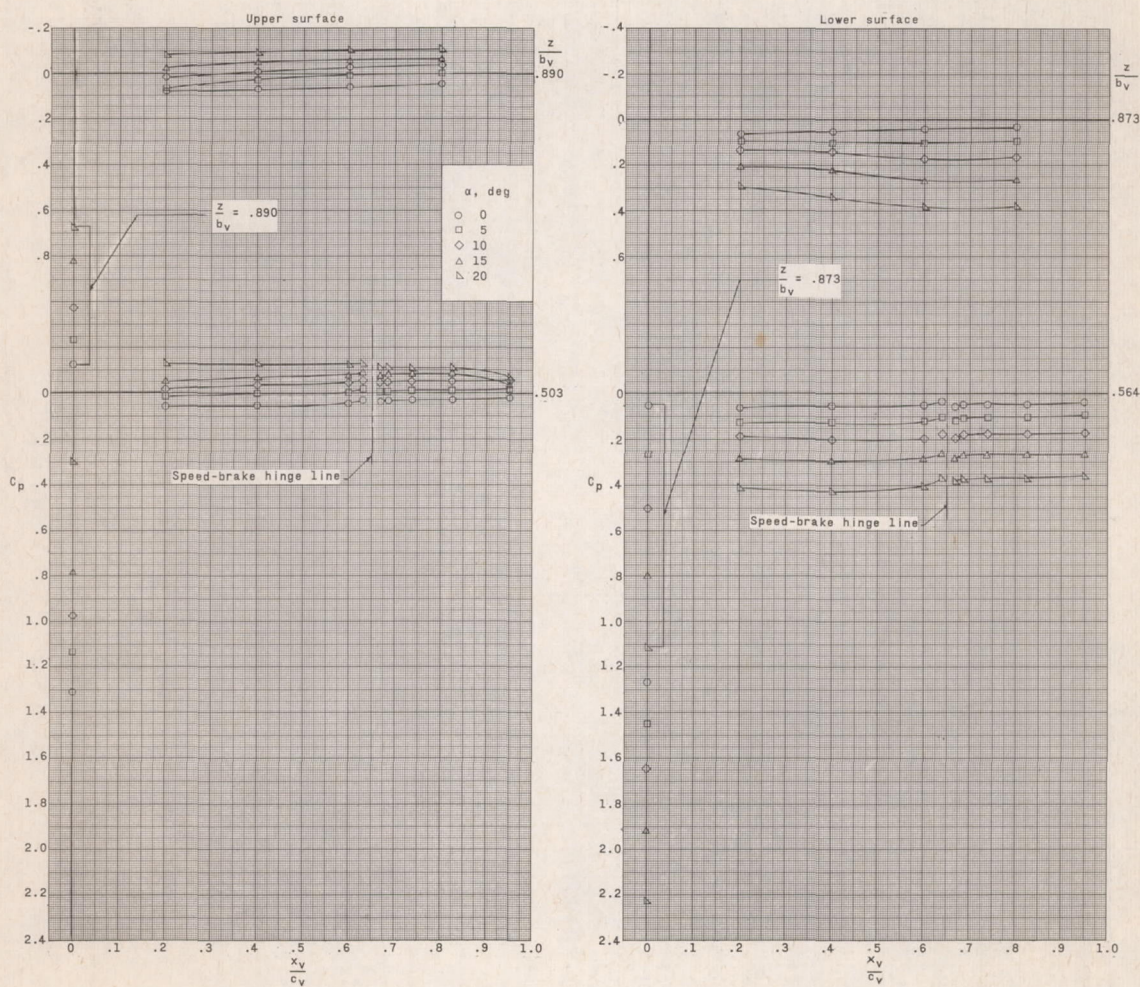


(a)  $M = 2.30$ .

Figure 16.- Effect of angle of attack on pressure distribution of vertical tail.  
 $\beta = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

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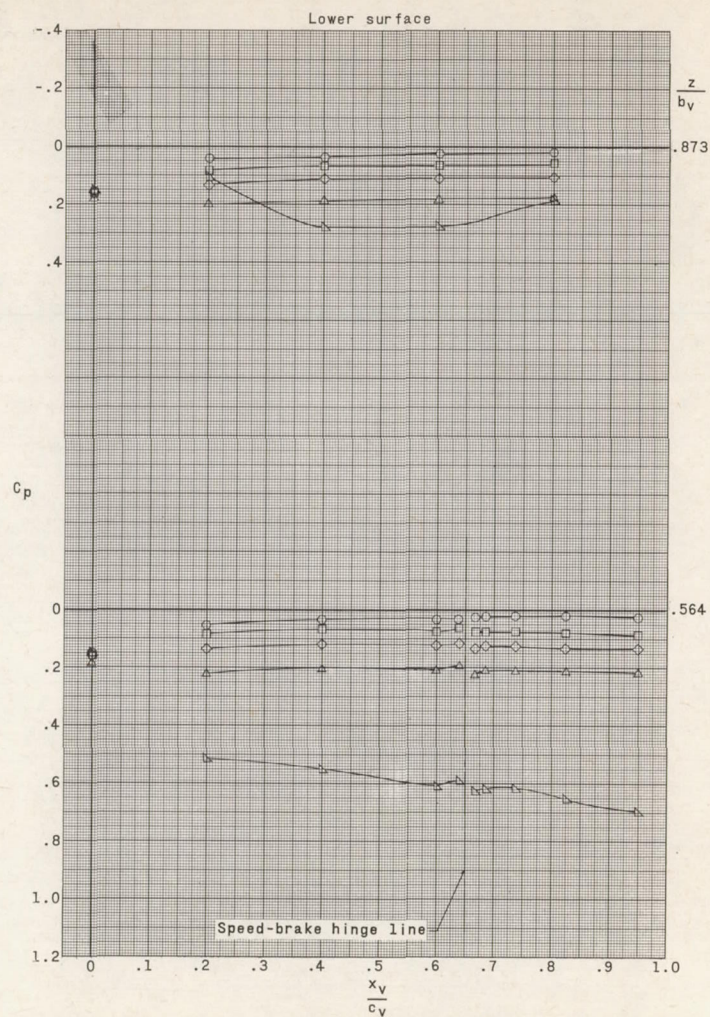
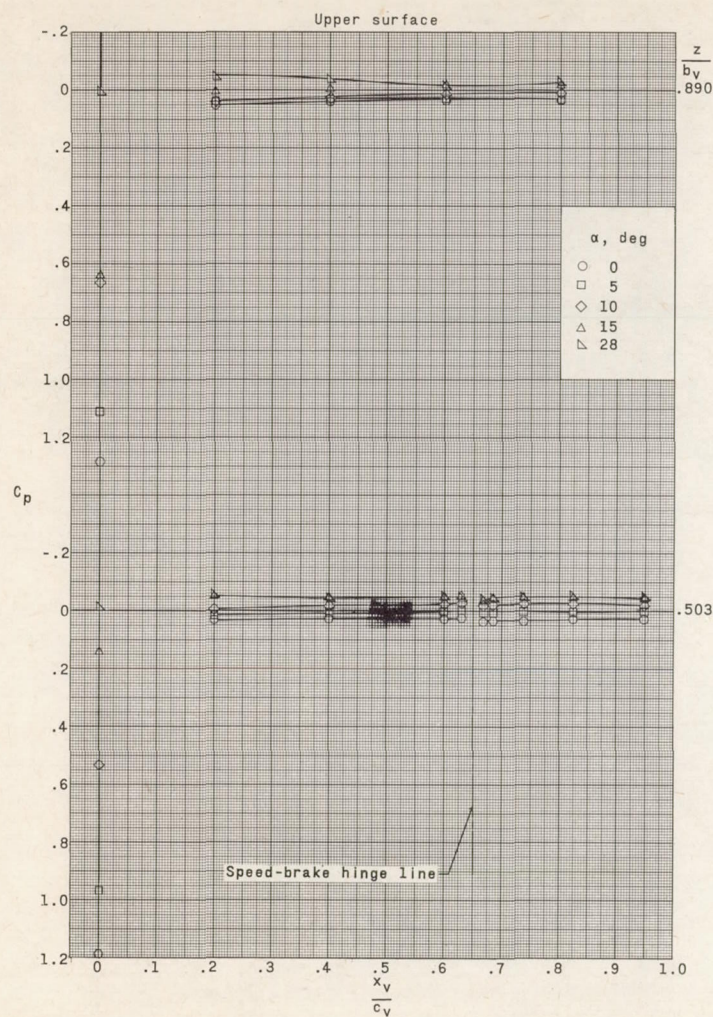


(b)  $M = 2.88$ .

Figure 16.- Continued.



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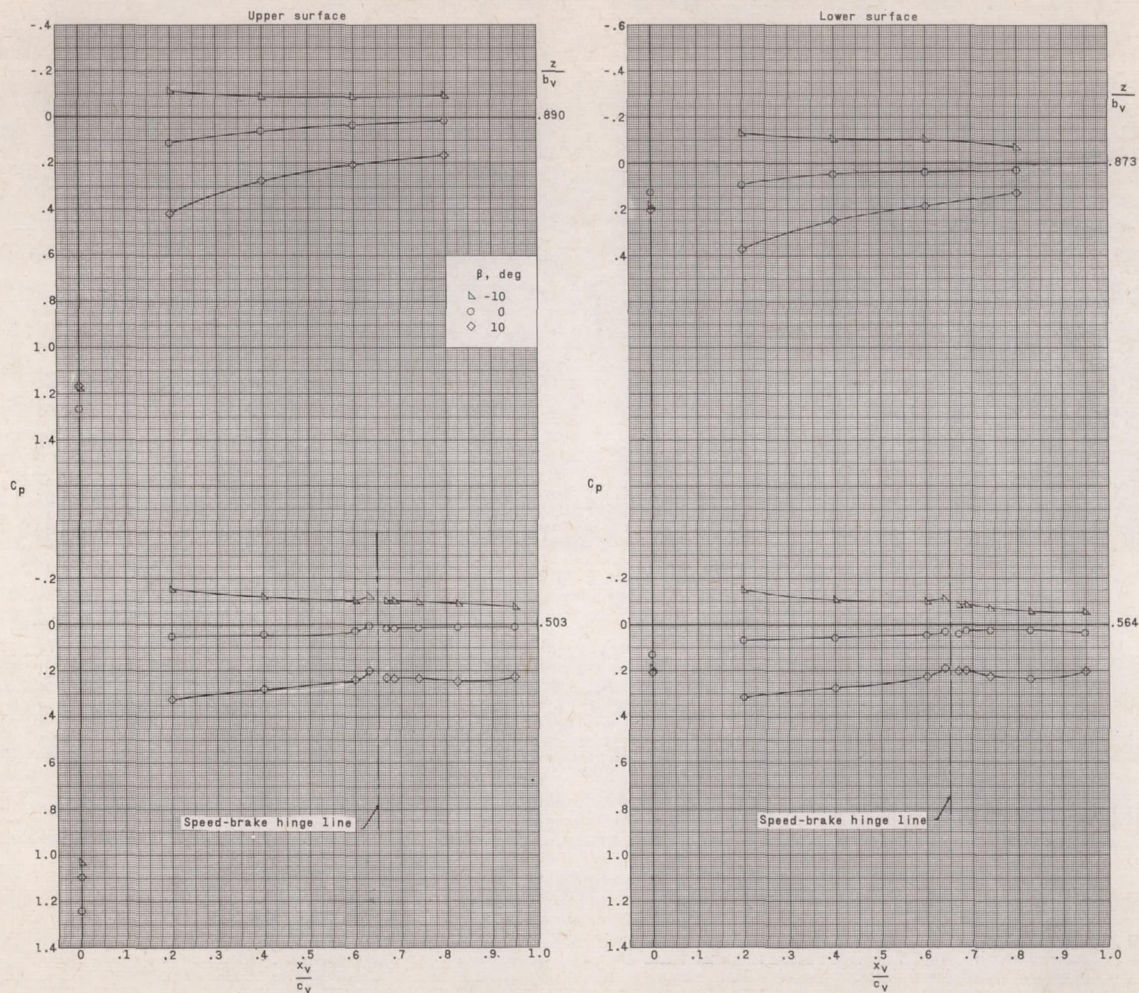
(c)  $M = 4.65$ .

Figure 16.- Concluded.

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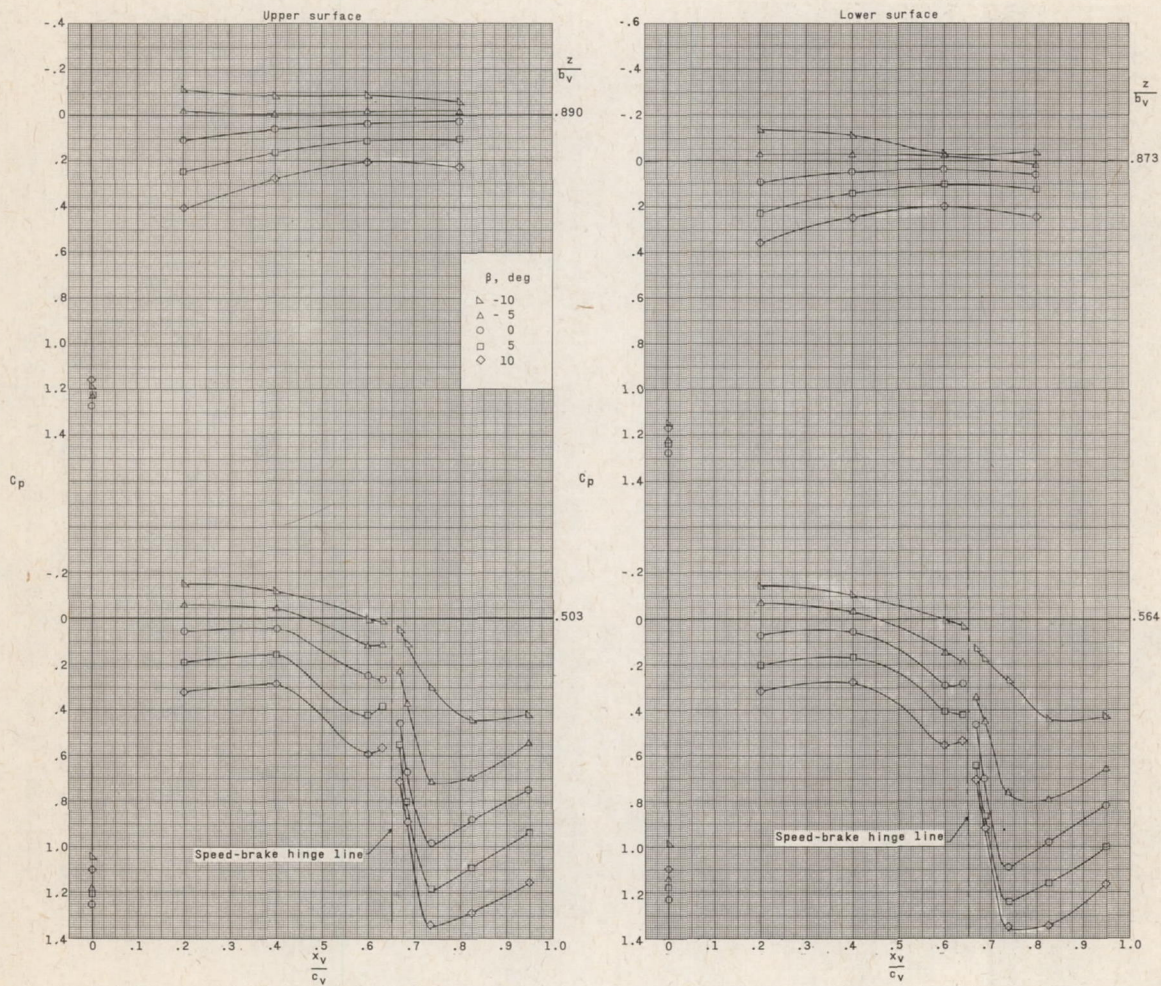


(a)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Effect of sideslip on pressure distribution of vertical tail with various vertical-tail deflections.  $M = 2.30$ .

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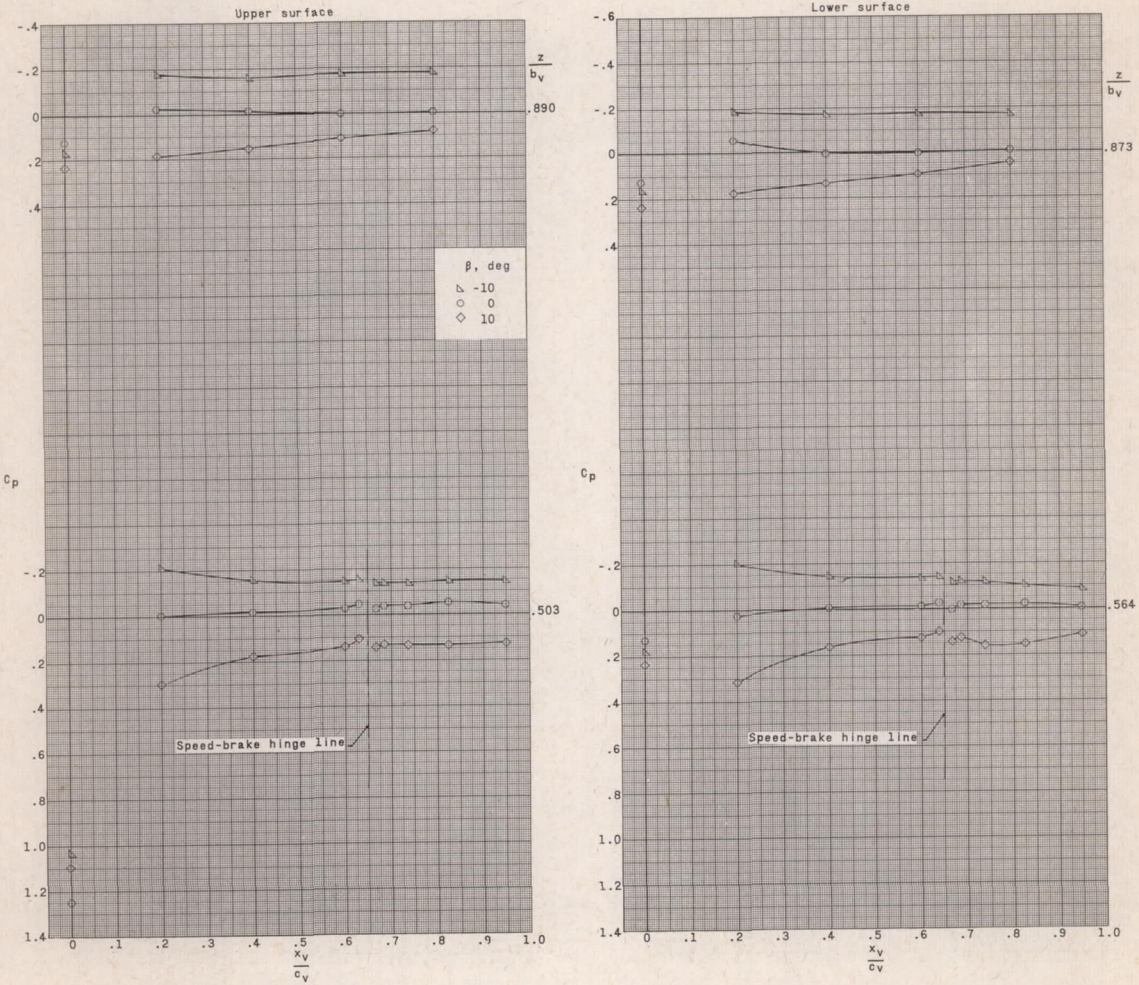




(b)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 17.- Continued.

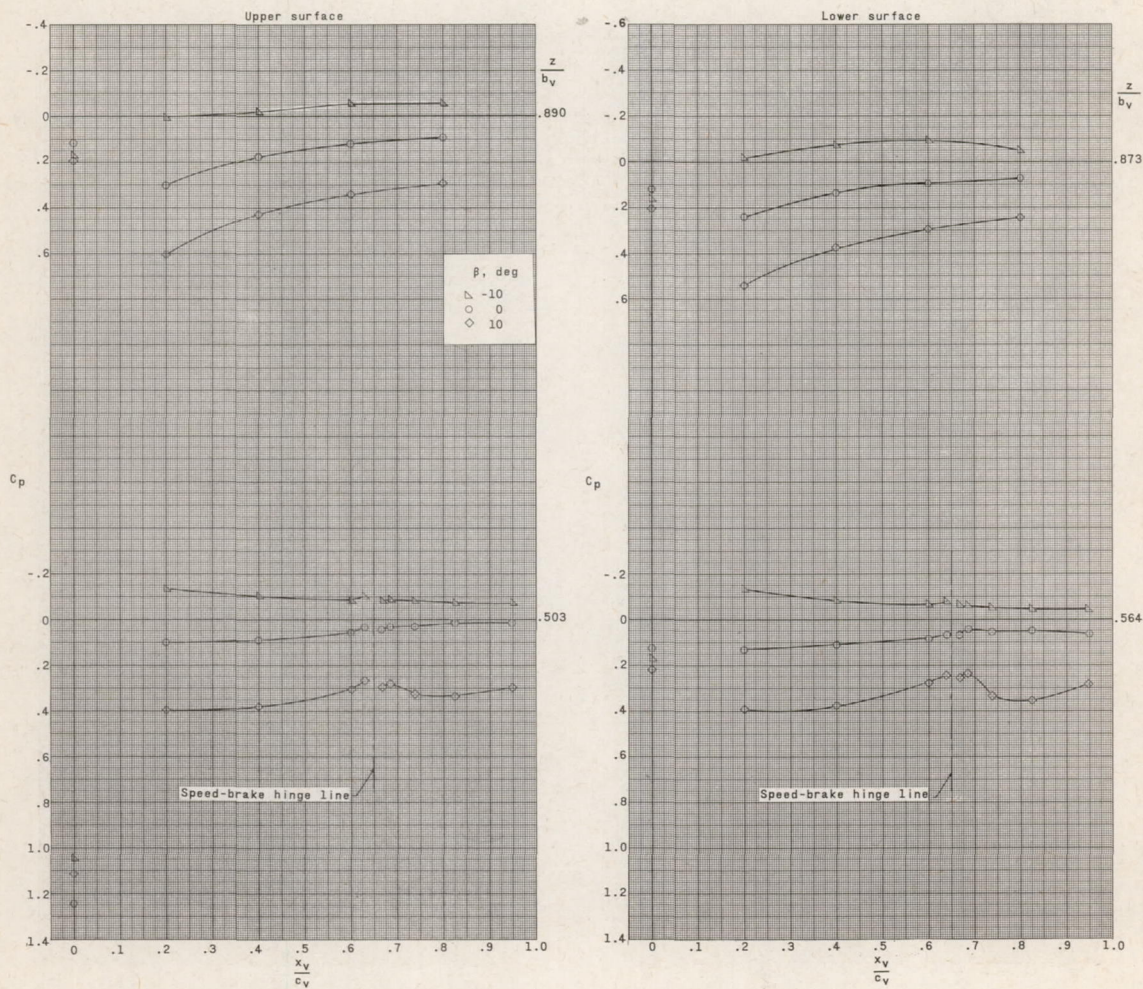




(c)  $\alpha = 0^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Continued.

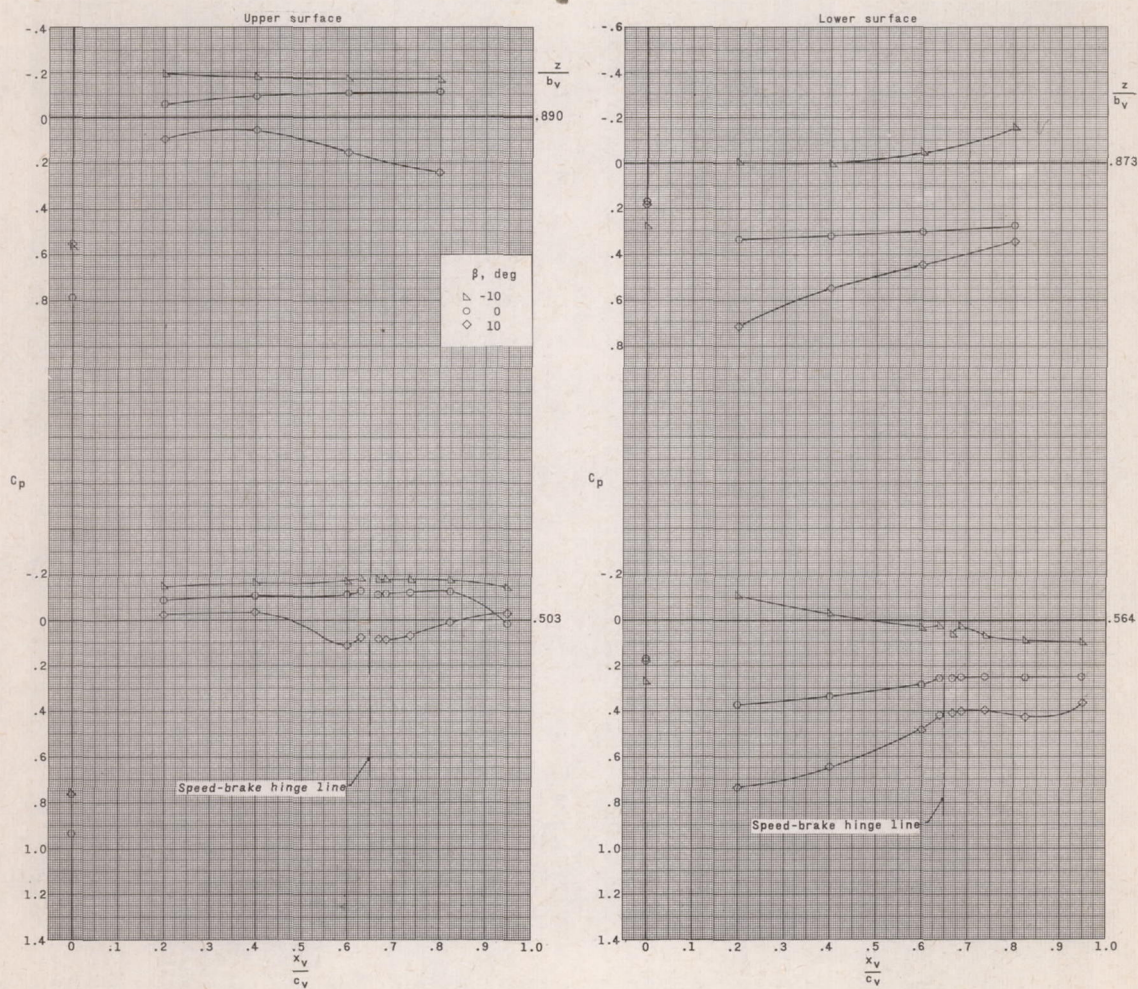




(d)  $\alpha = 0^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Continued.

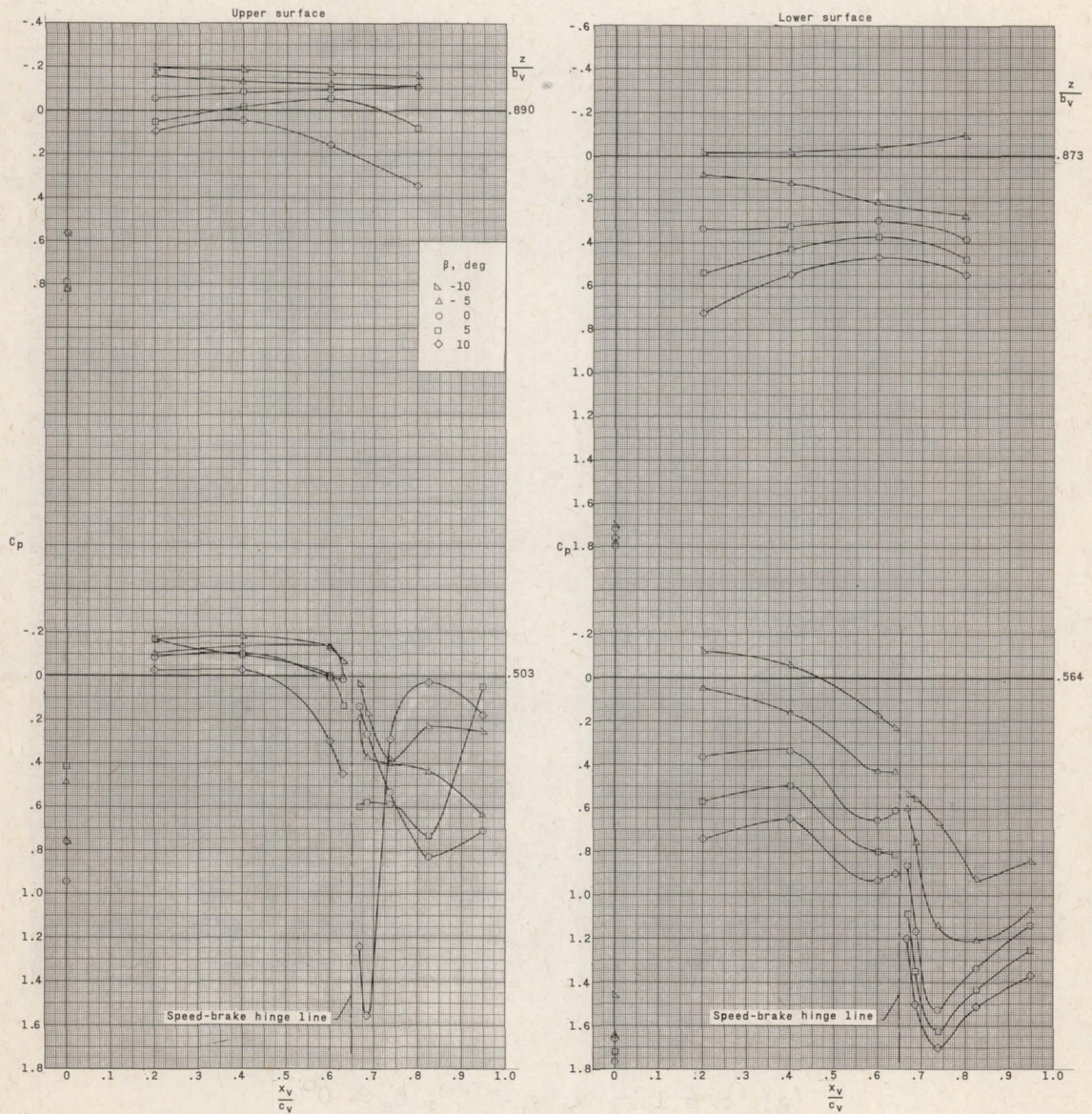




(e)  $\alpha = 15^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Continued.

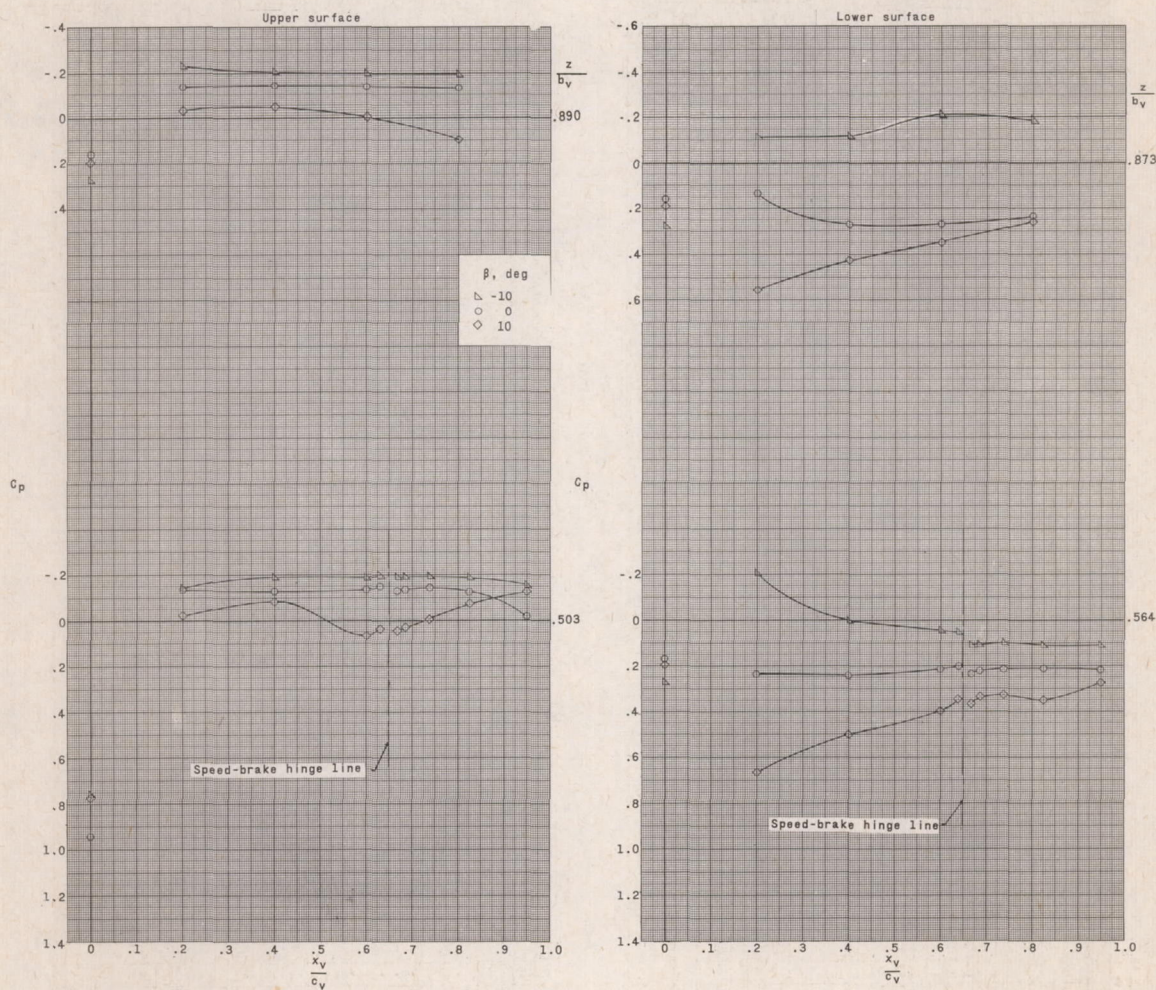




(f)  $\alpha = 15^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 17.- Continued.

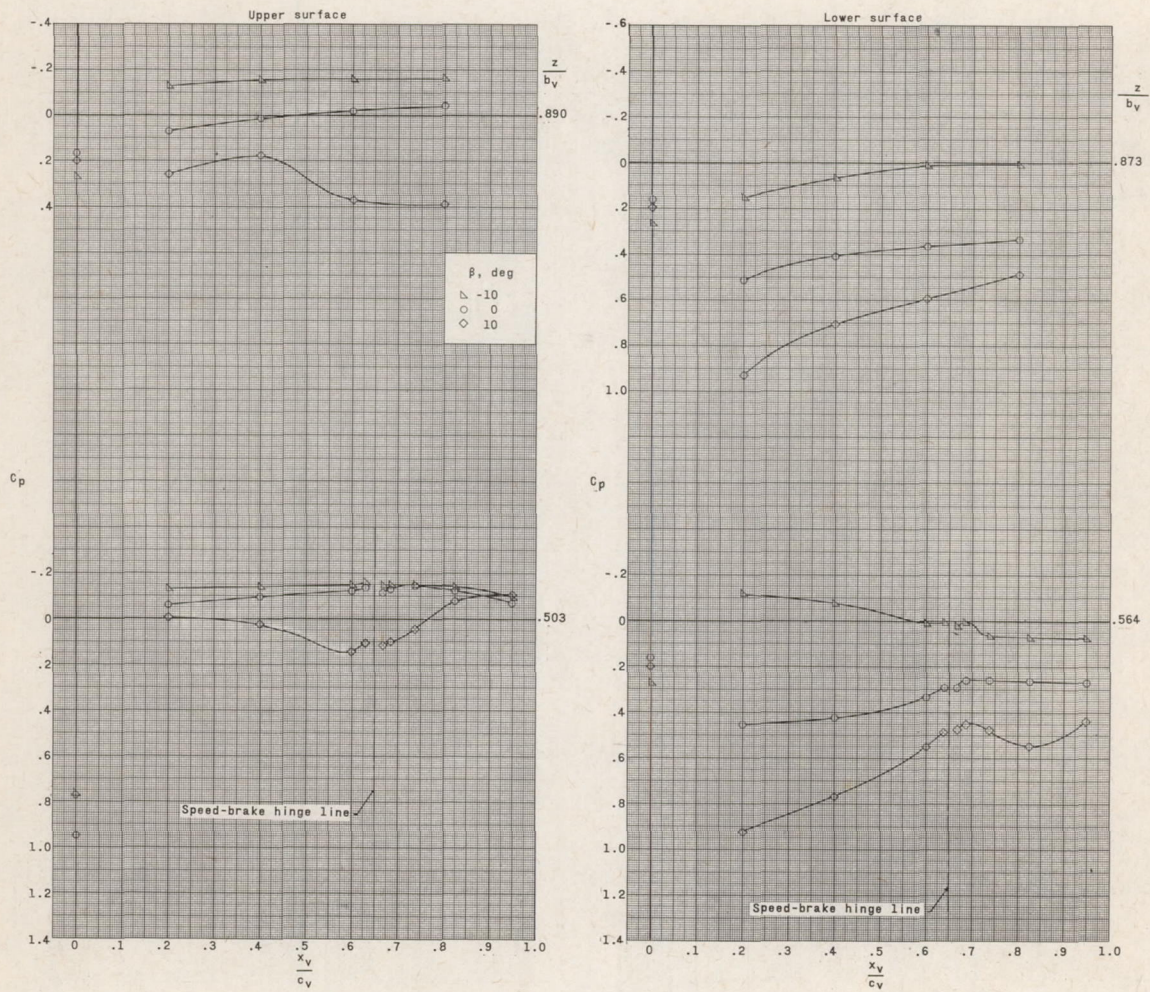




(g)  $\alpha = 15^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Continued.



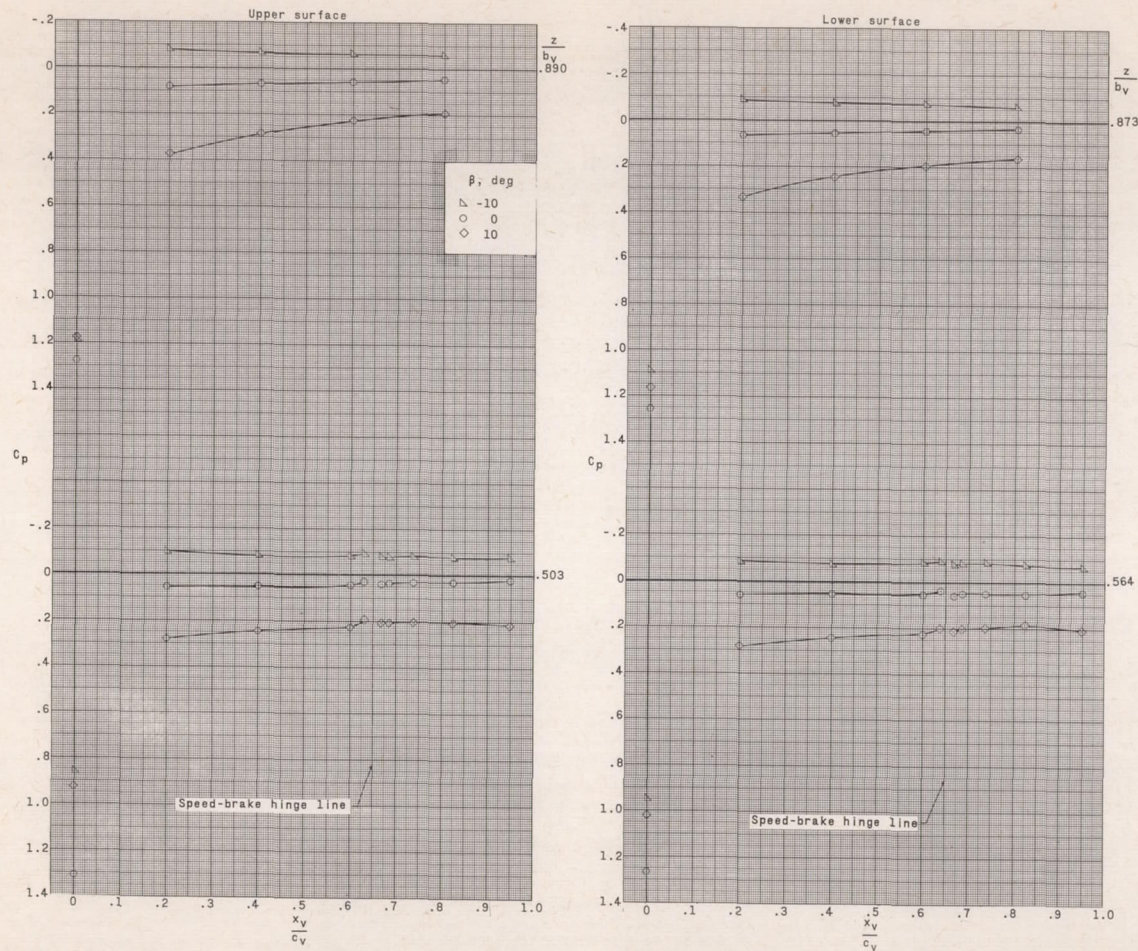


(h)  $\alpha = 15^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 17.- Concluded.



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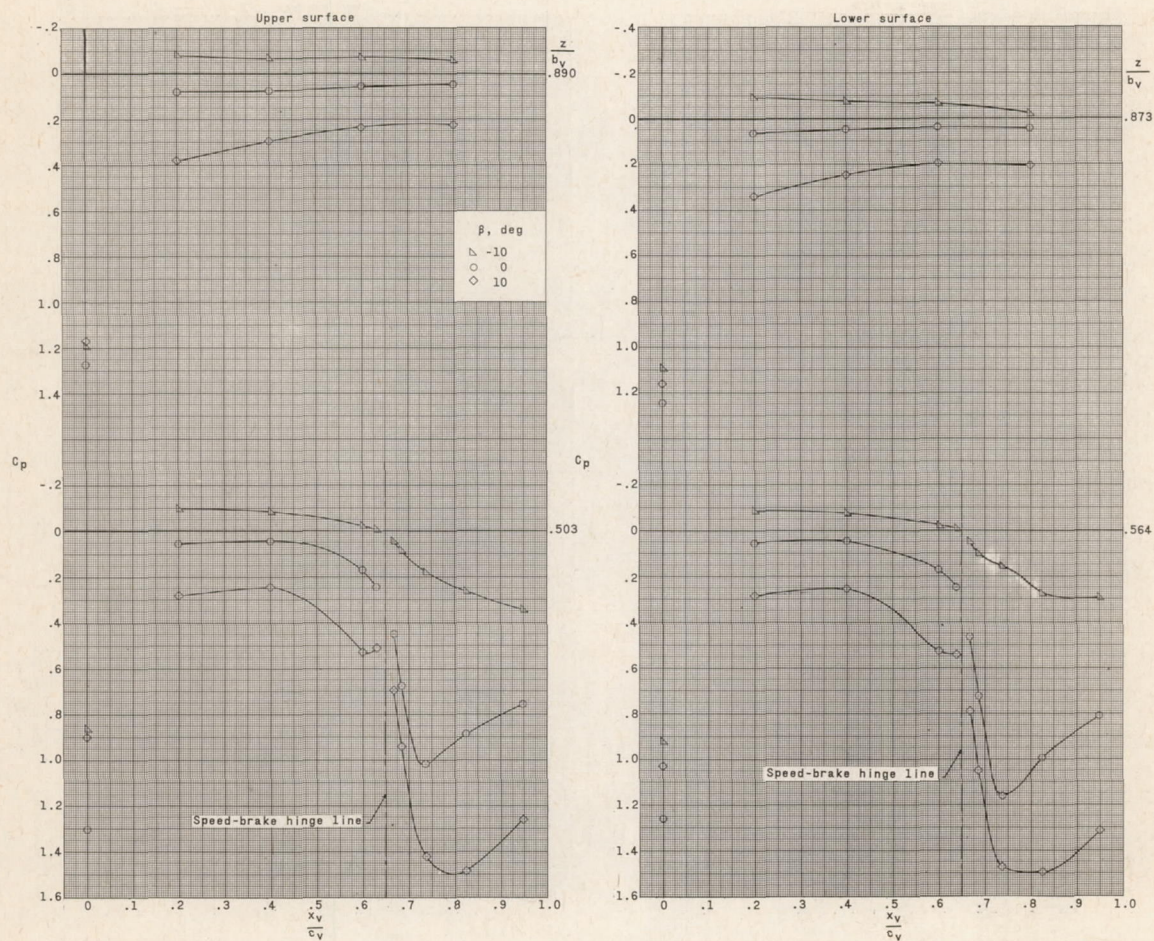


(a)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Effect of sideslip on pressure distribution of vertical tail with various vertical-tail deflections.  $M = 2.88$ .

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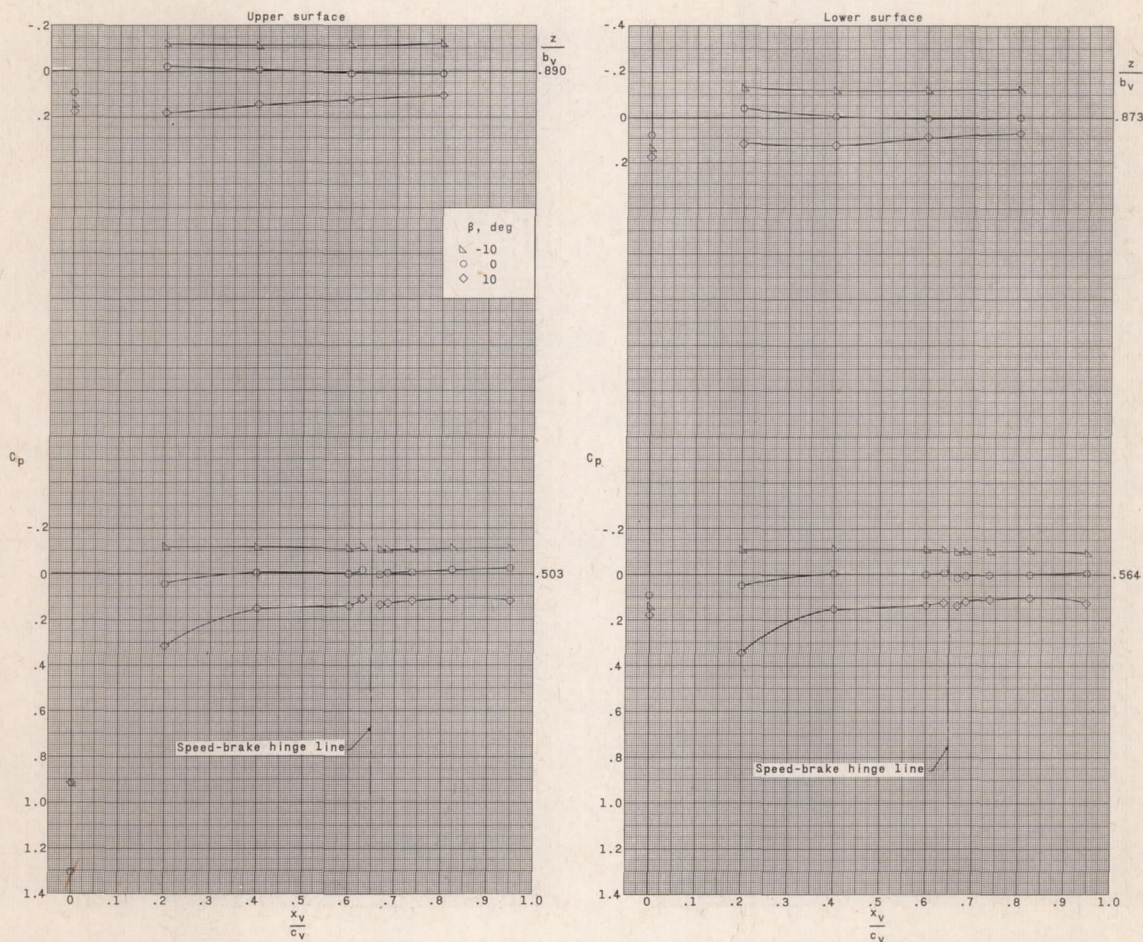




(b)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 18.- Continued.

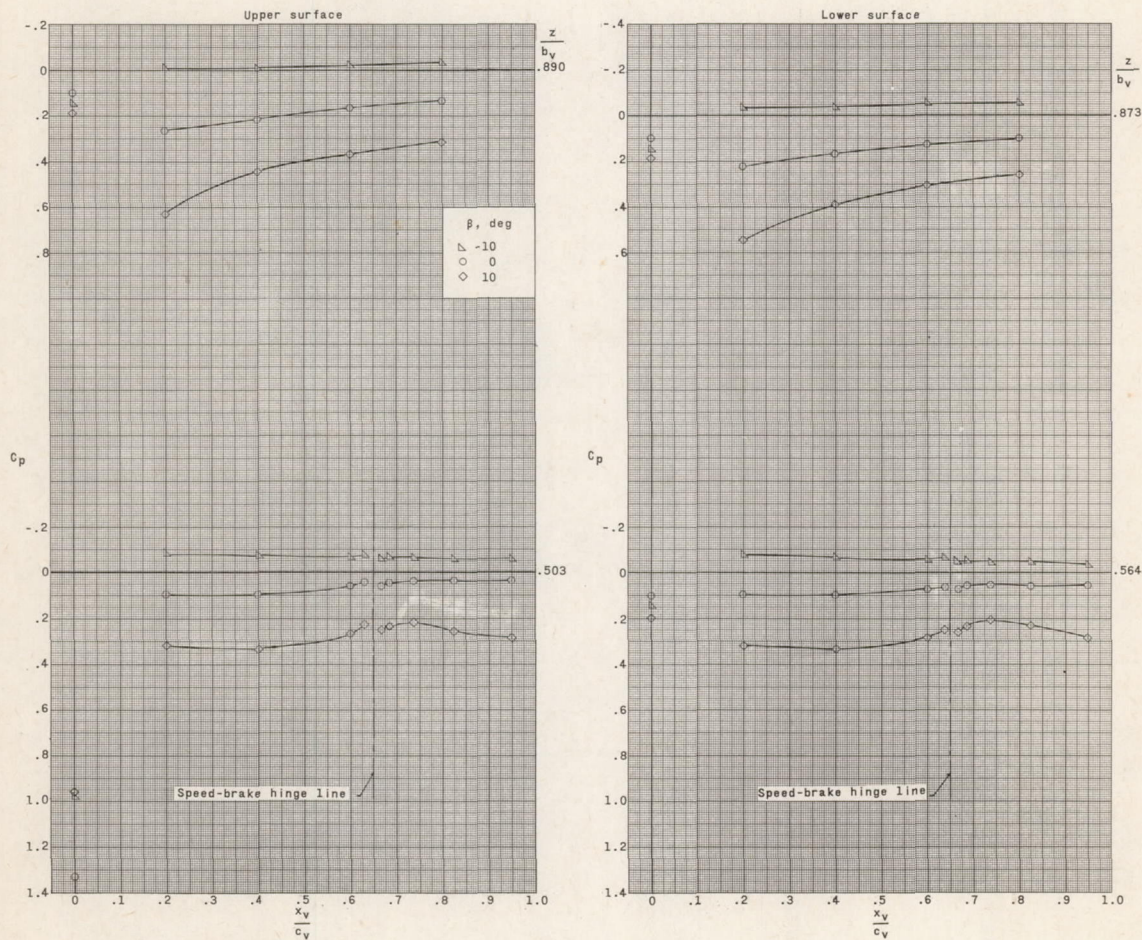




(c)  $\alpha = 0^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Continued.

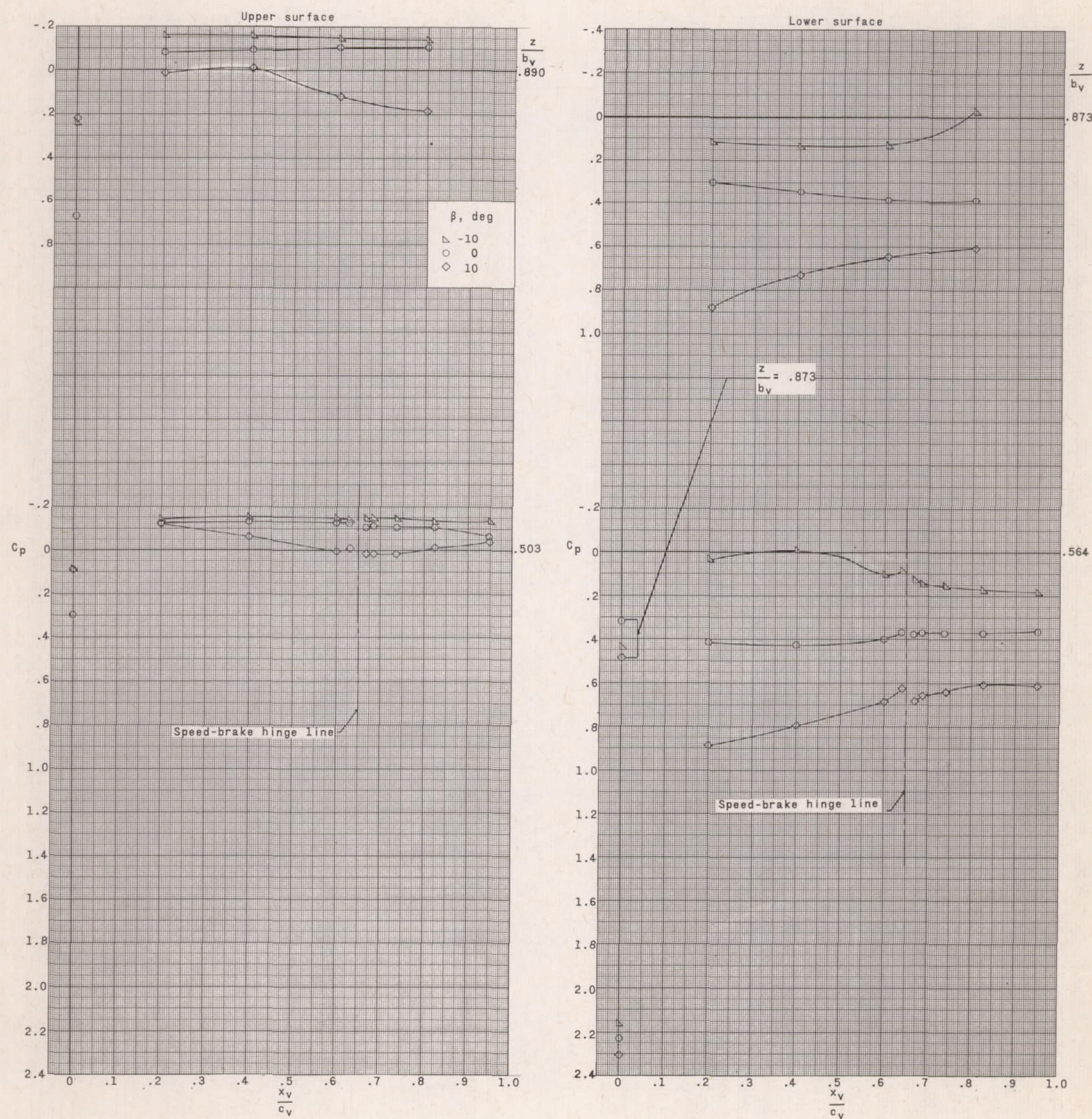




(d)  $\alpha = 0^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Continued.

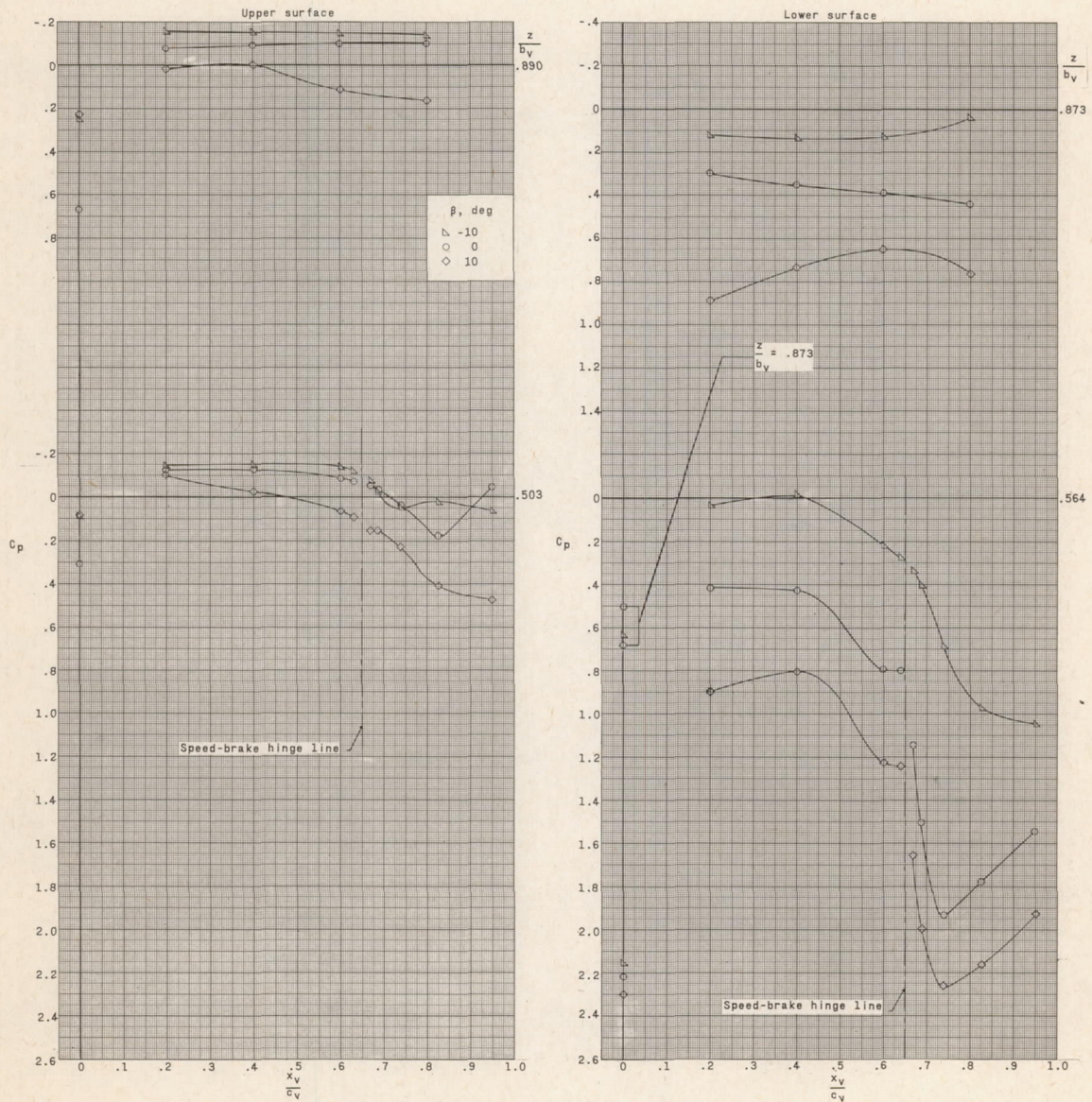




(e)  $\alpha = 20^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Continued.

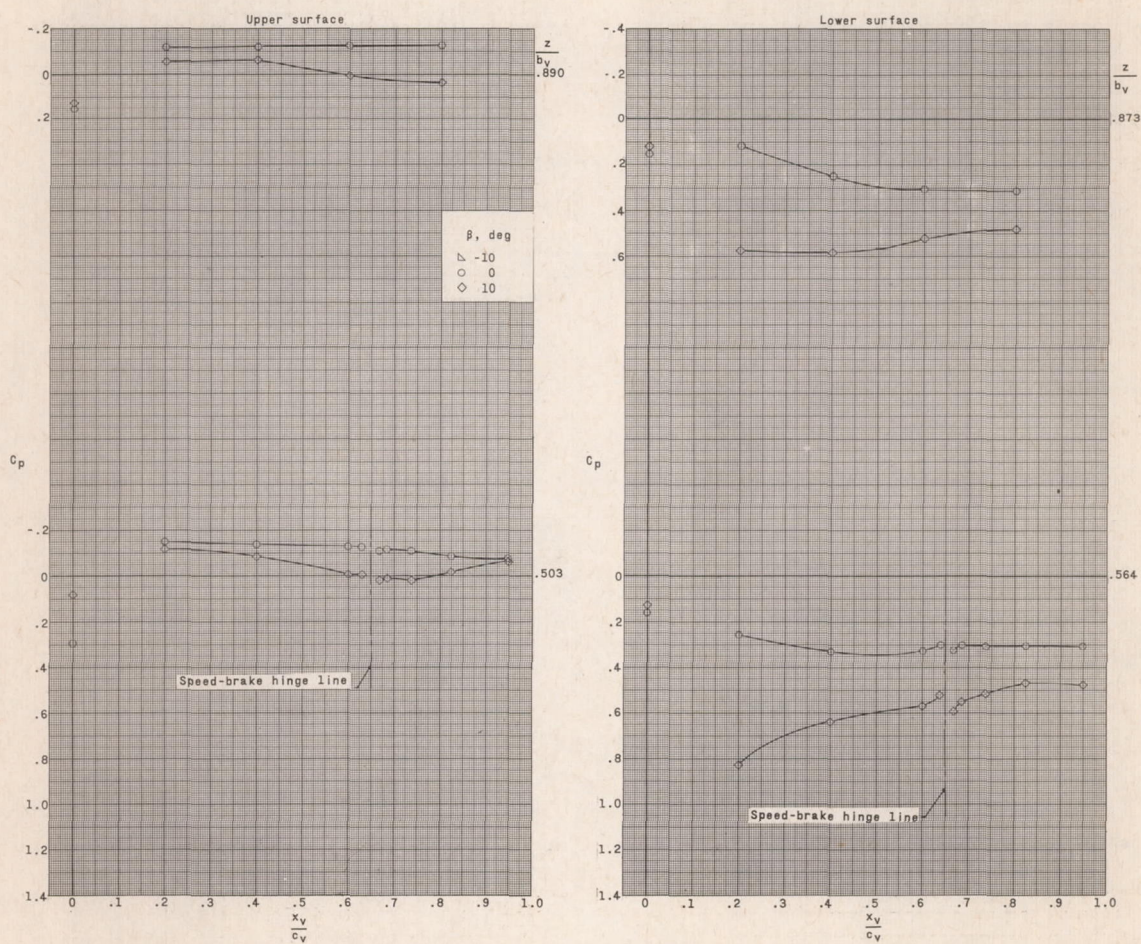




(f)  $\alpha = 20^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 18.- Continued.

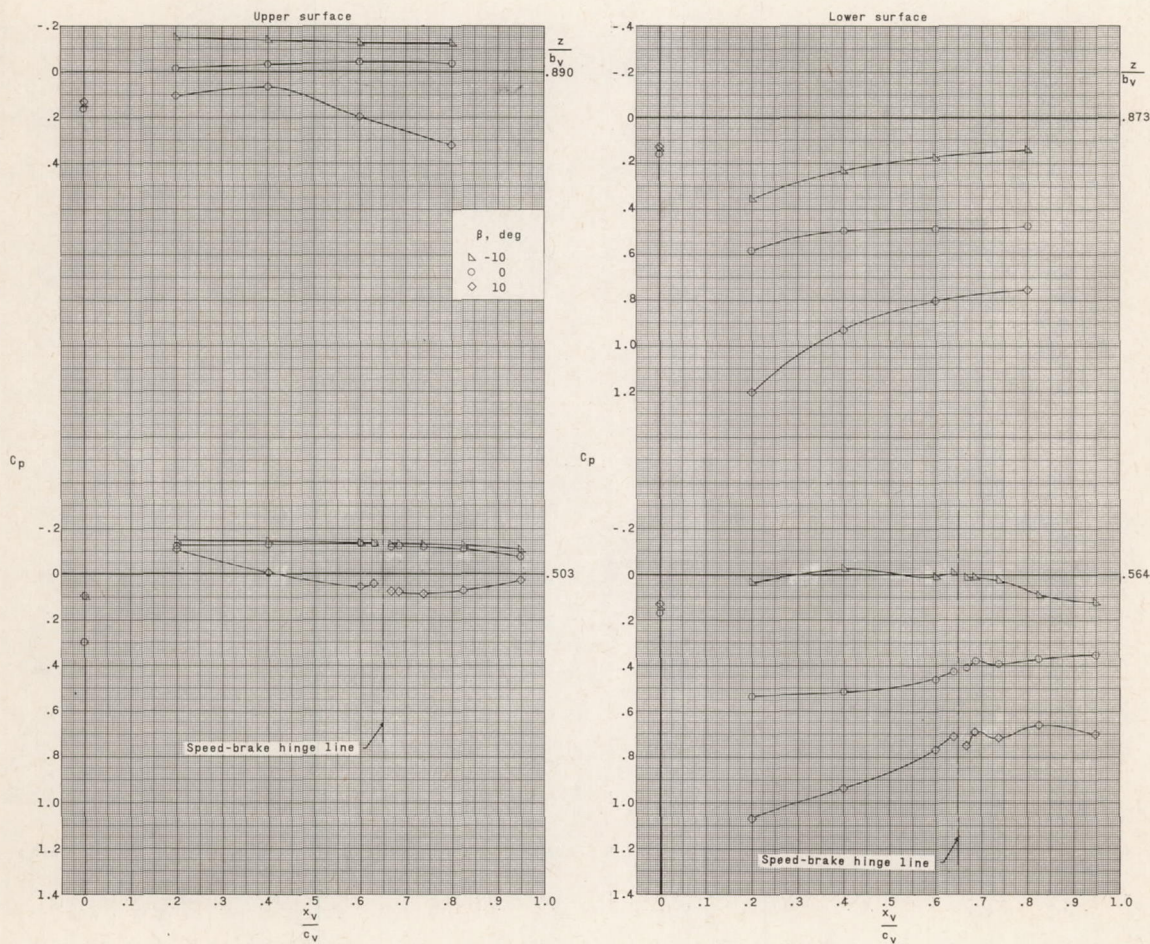




(g)  $\alpha = 20^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Continued.



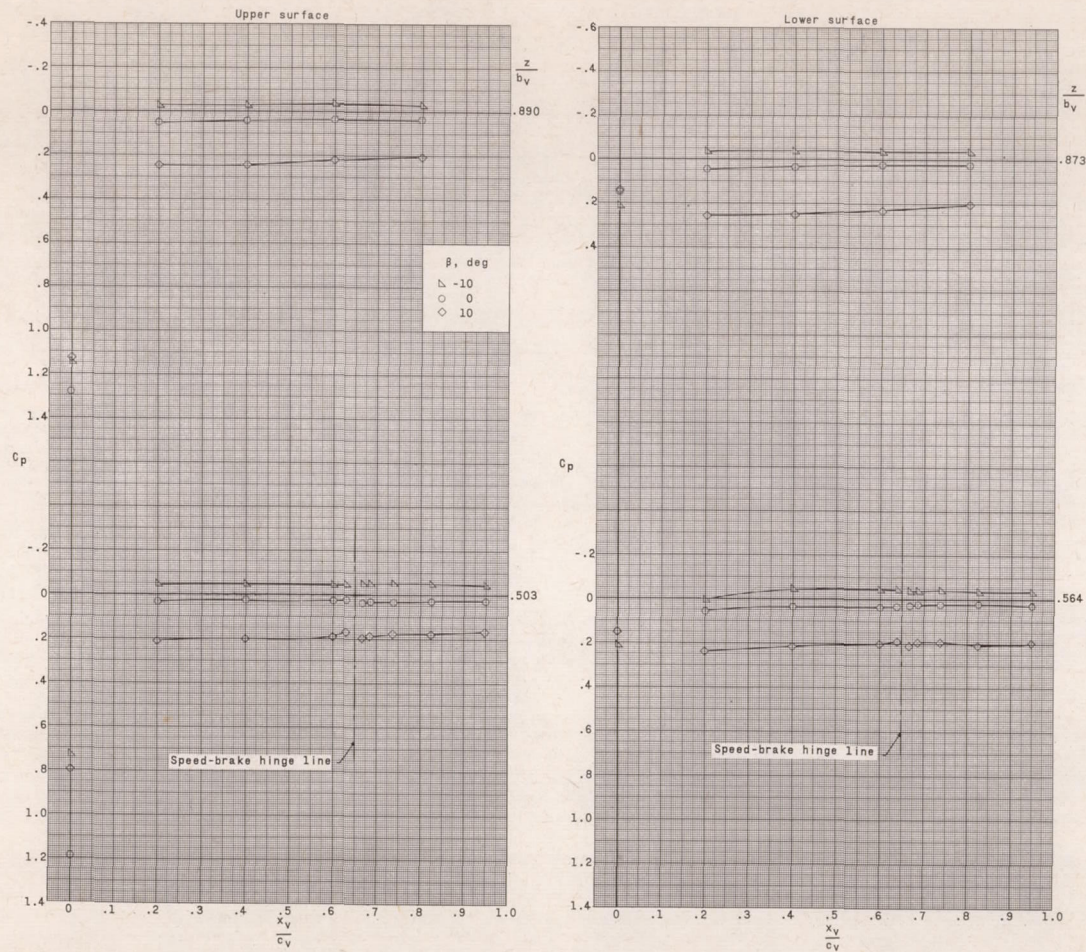


(h)  $\alpha = 20^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 18.- Concluded.



CONFIDENTIAL

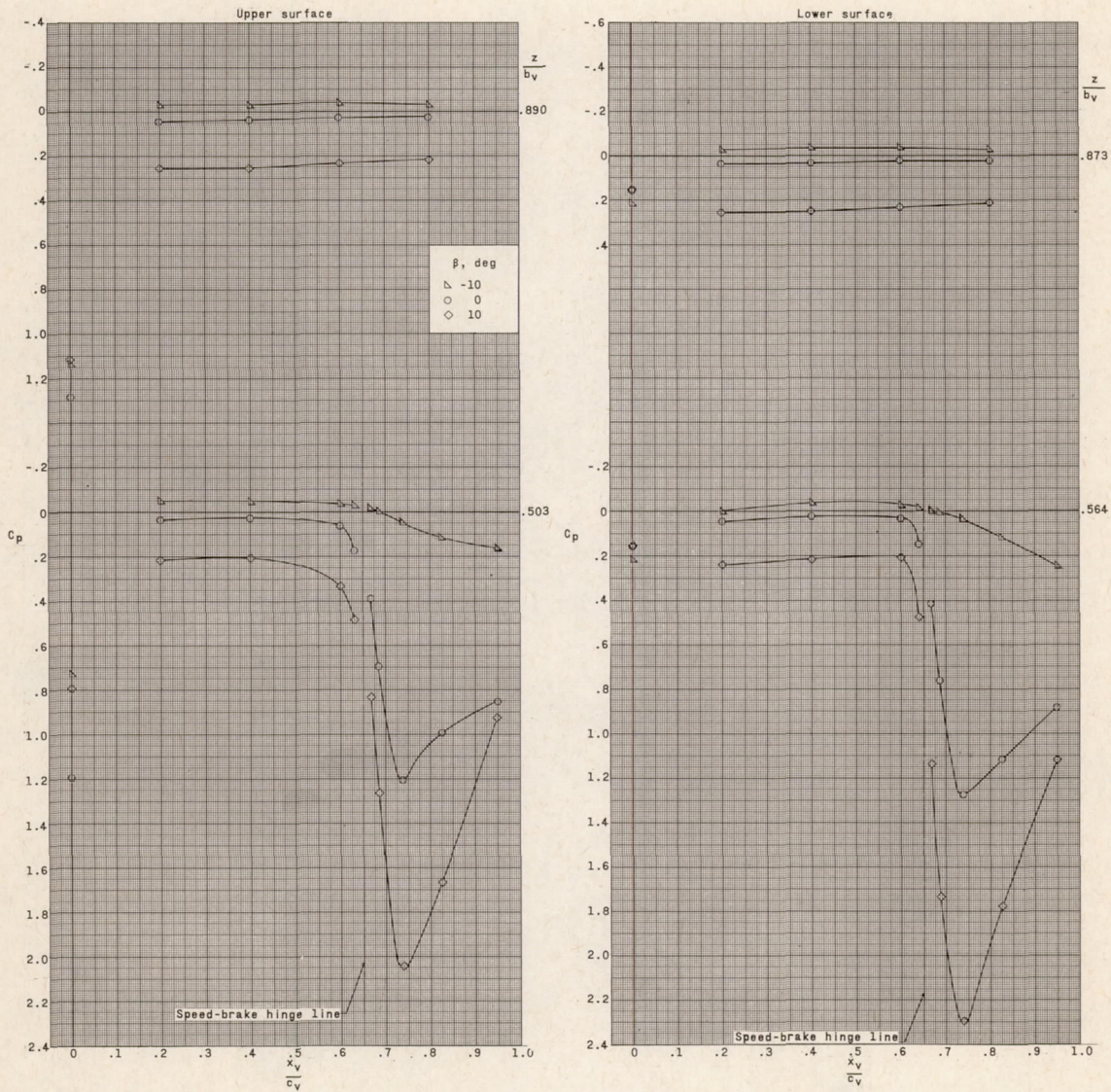


(a)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Effect of sideslip on pressure distribution of vertical tail with various vertical-tail deflections.  $M = 4.65$

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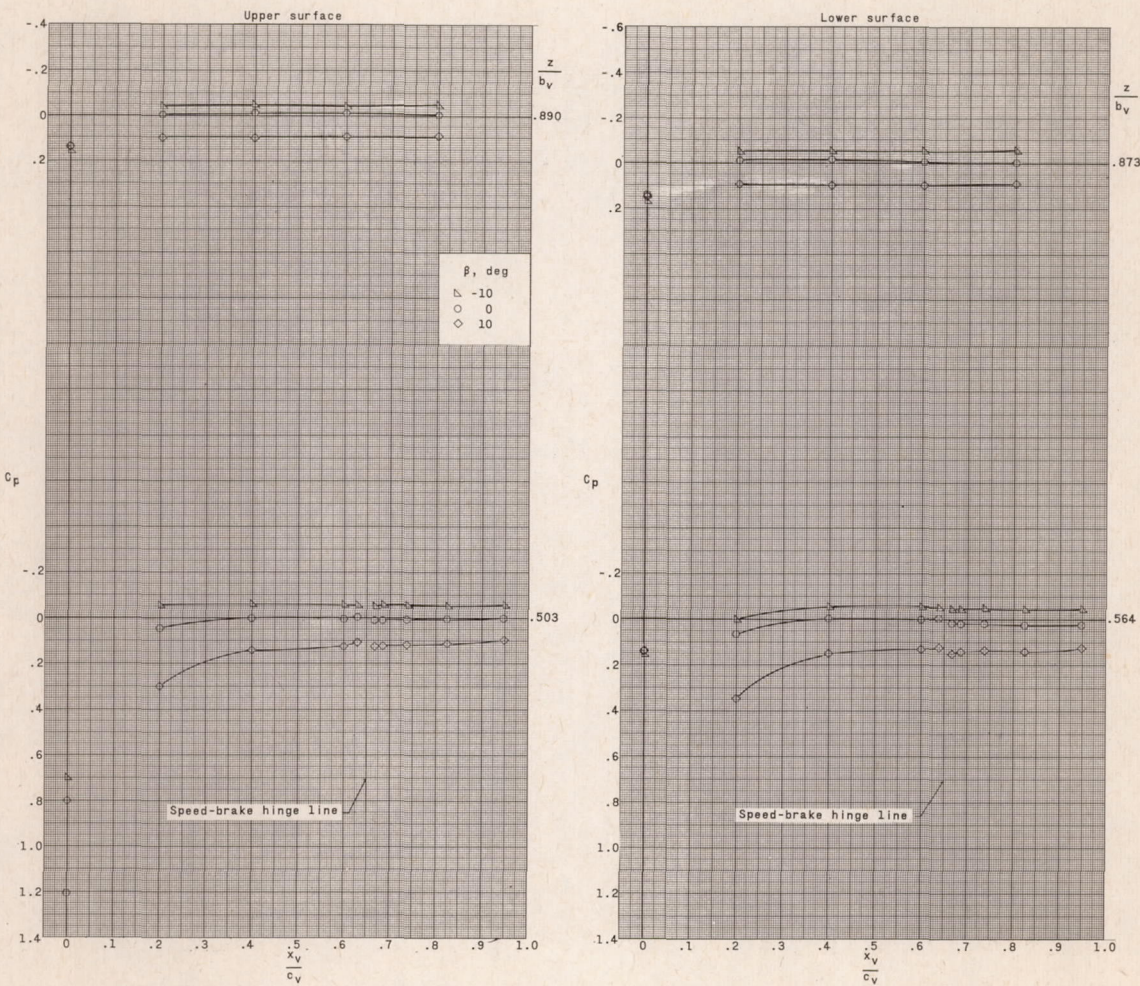




(b)  $\alpha = 0^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 19.- Continued.

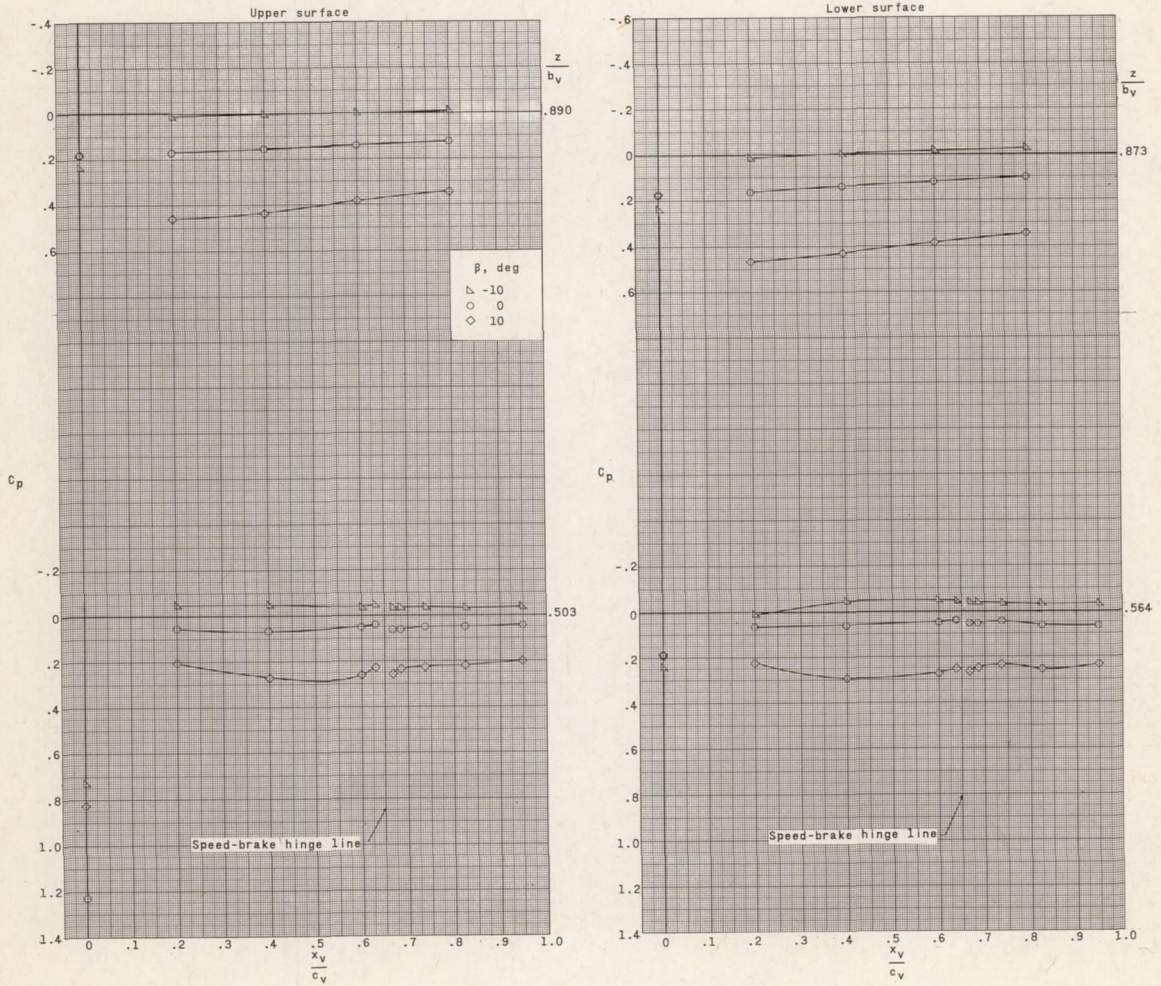




(c)  $\alpha = 0^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Continued.

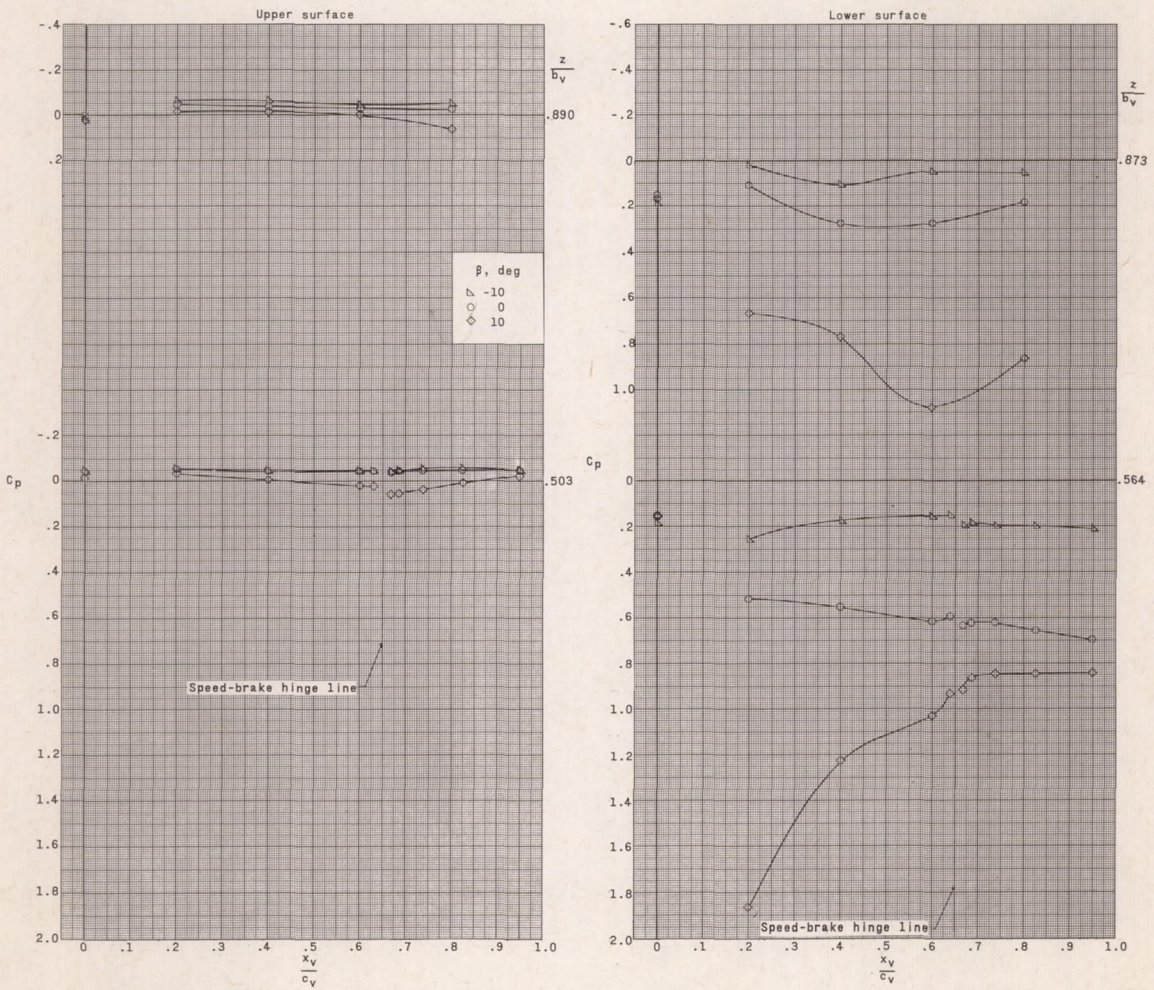




(d)  $\alpha = 0^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Continued.

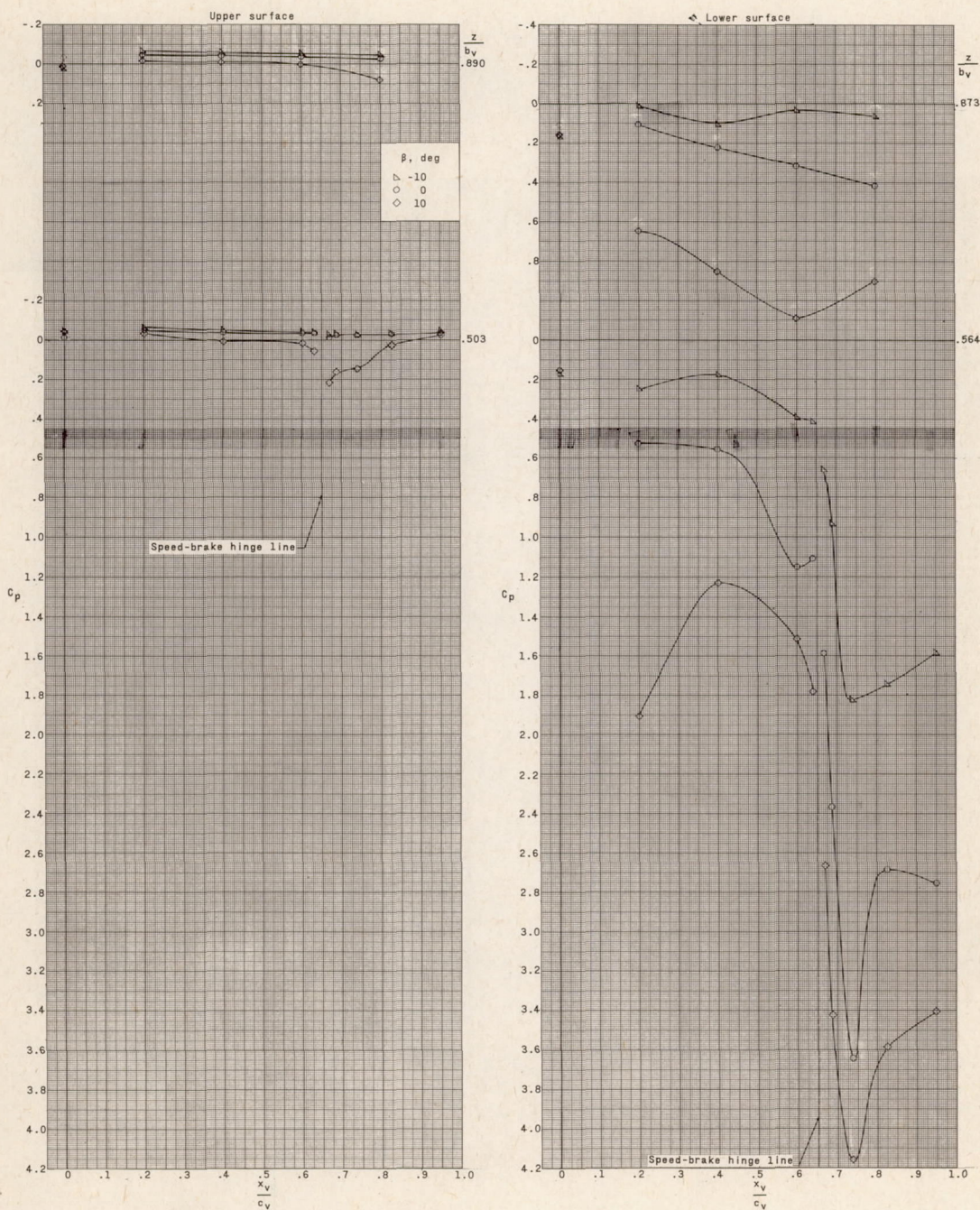




(e)  $\alpha = 28^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Continued.

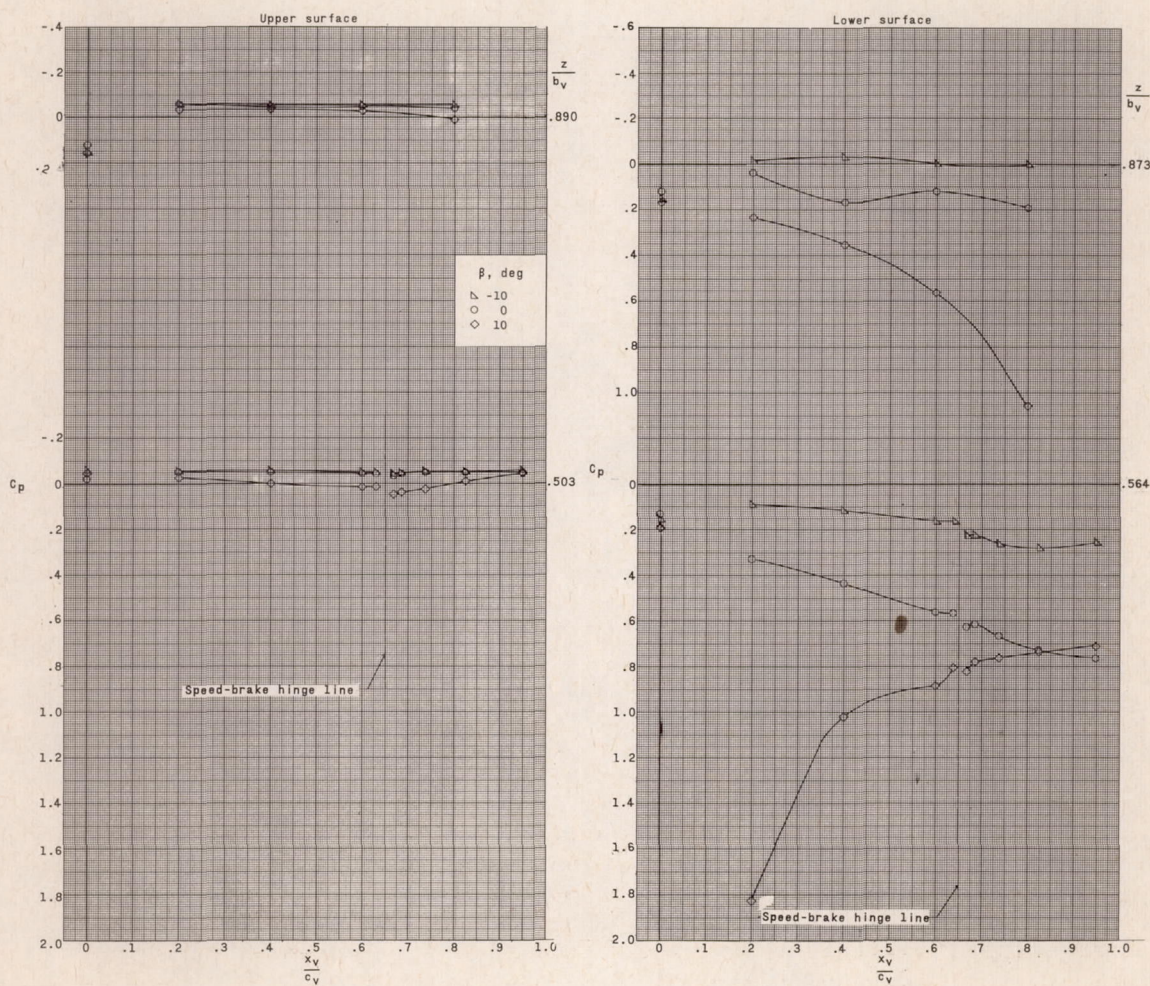




(f)  $\alpha = 28^\circ$ ;  $\delta_v = 0^\circ$ ;  $\delta_s = 35^\circ$ .

Figure 19.- Continued.

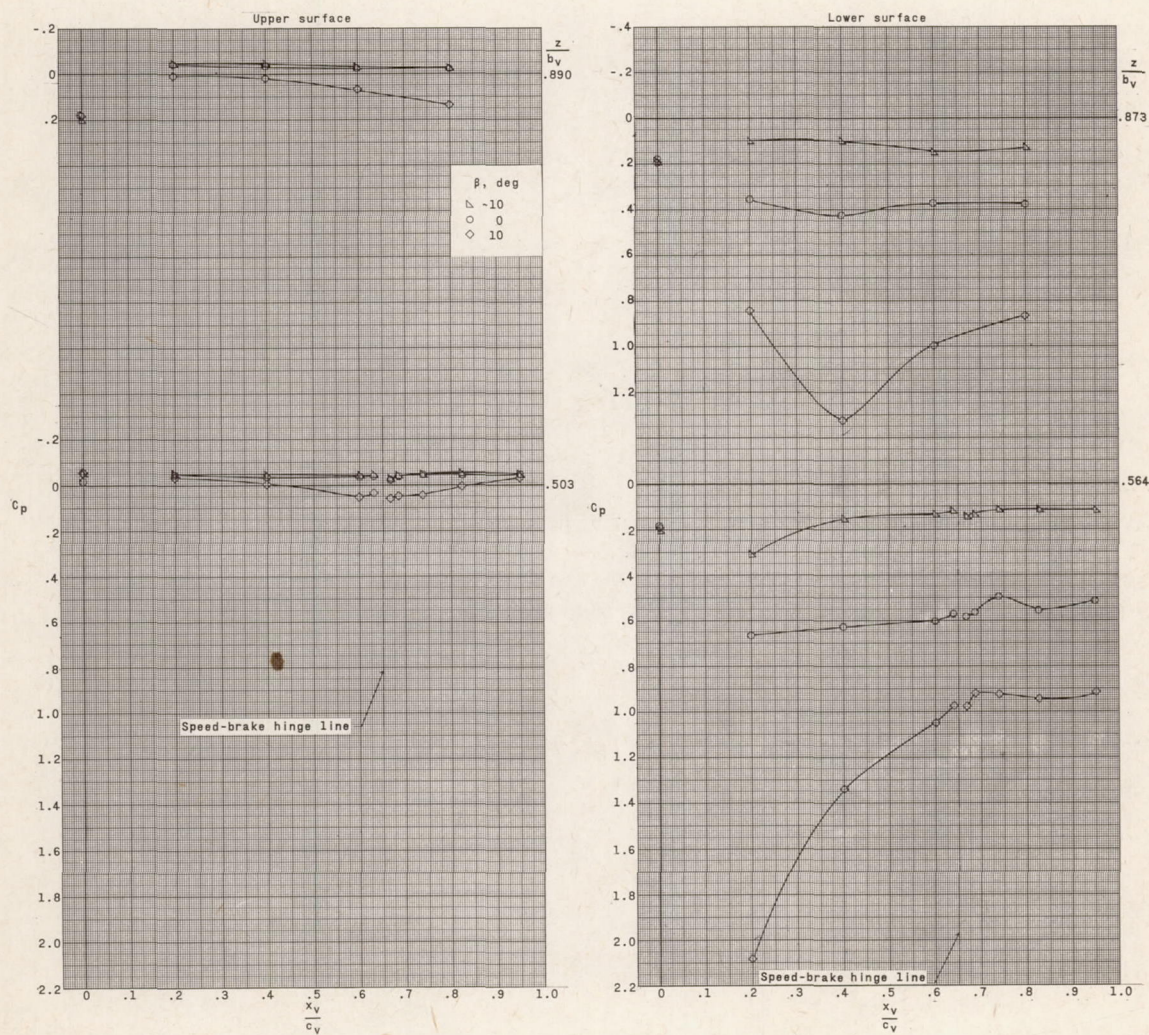




(g)  $\alpha = 28^\circ$ ;  $\delta_v = -7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Continued.



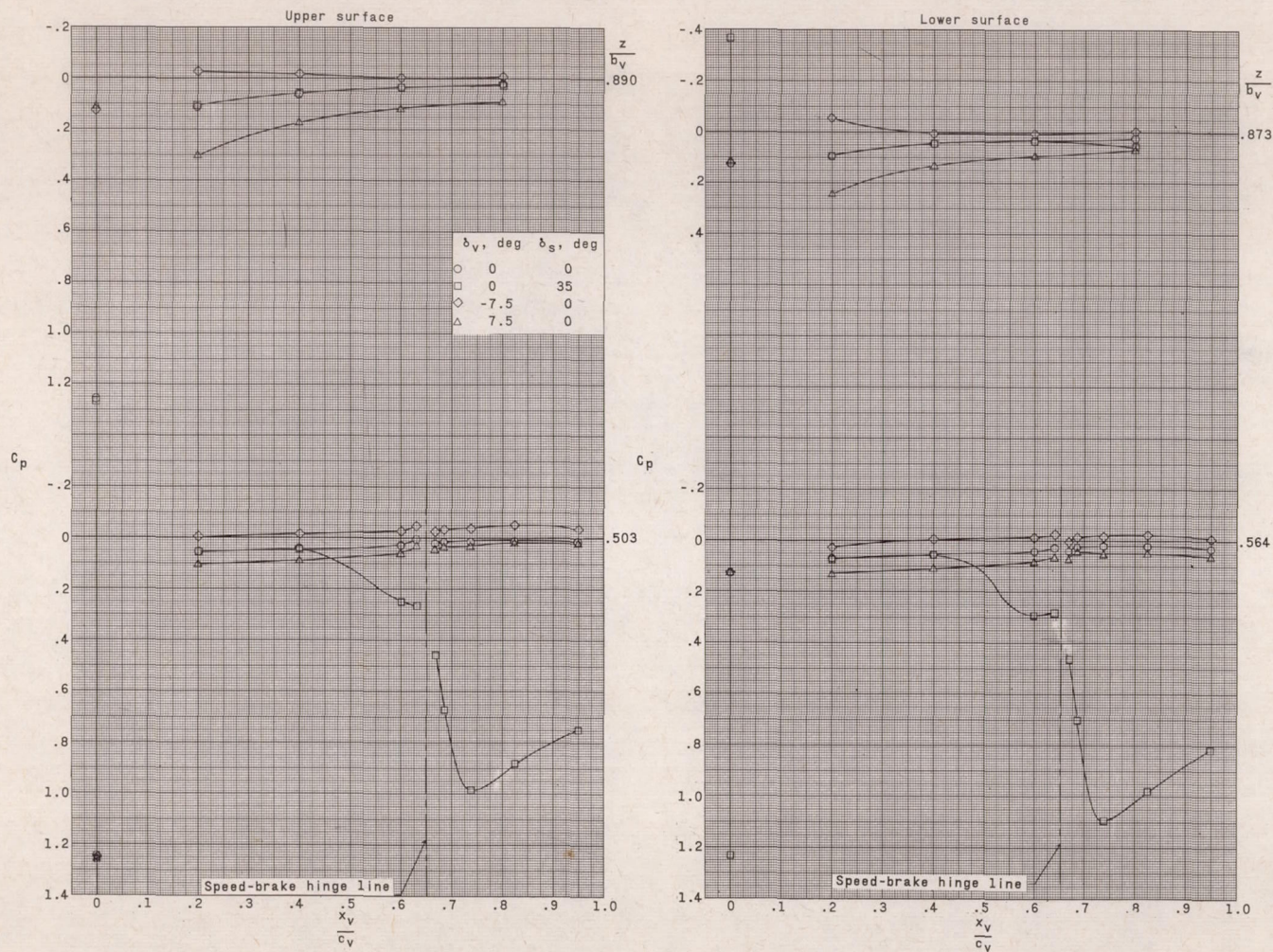


(h)  $\alpha = 28^\circ$ ;  $\delta_v = 7.5^\circ$ ;  $\delta_s = 0^\circ$ .

Figure 19.- Concluded.



CONFIDENTIAL

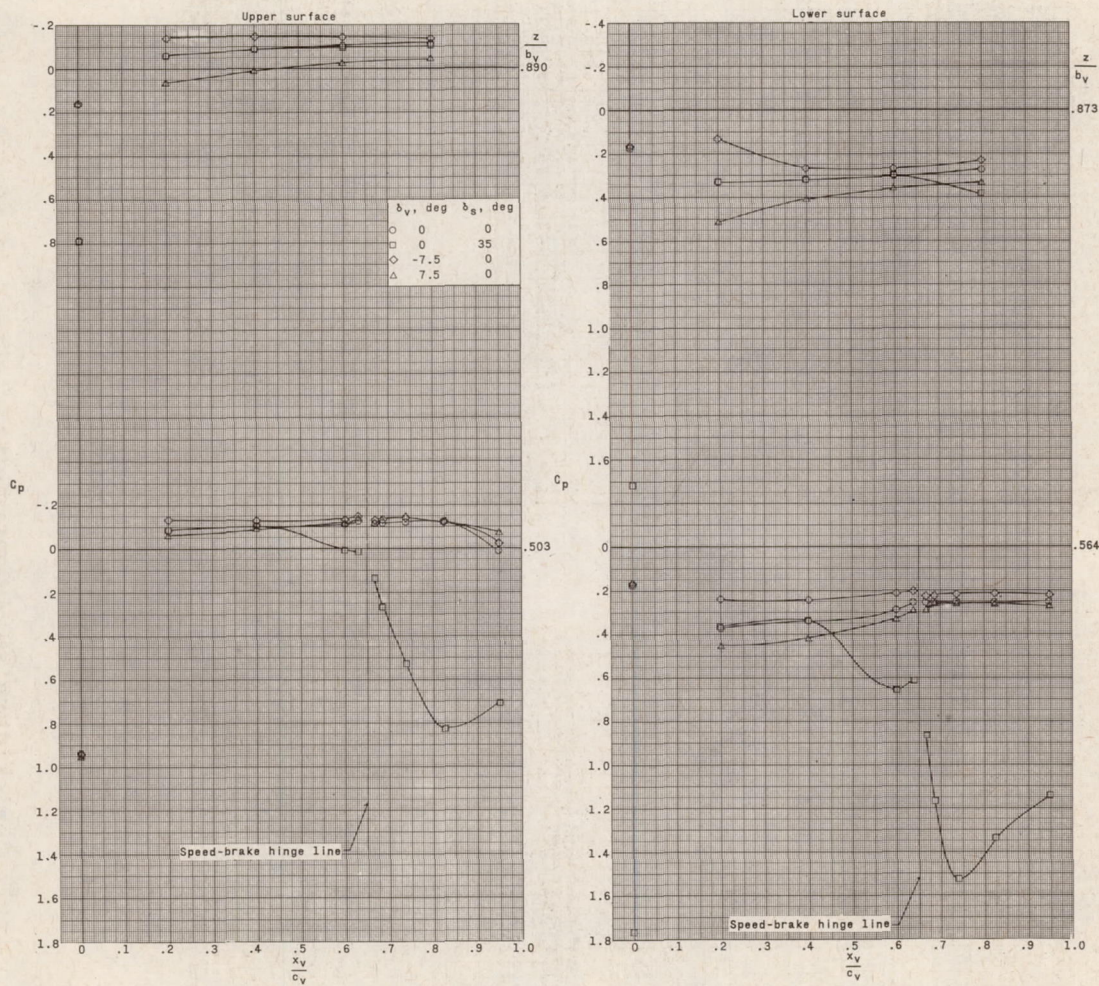


(a)  $M = 2.30$ ;  $\alpha = 0^\circ$ .

Figure 20.- Effect of tail deflections on pressure distribution of vertical tail.  $\beta = 0^\circ$ .

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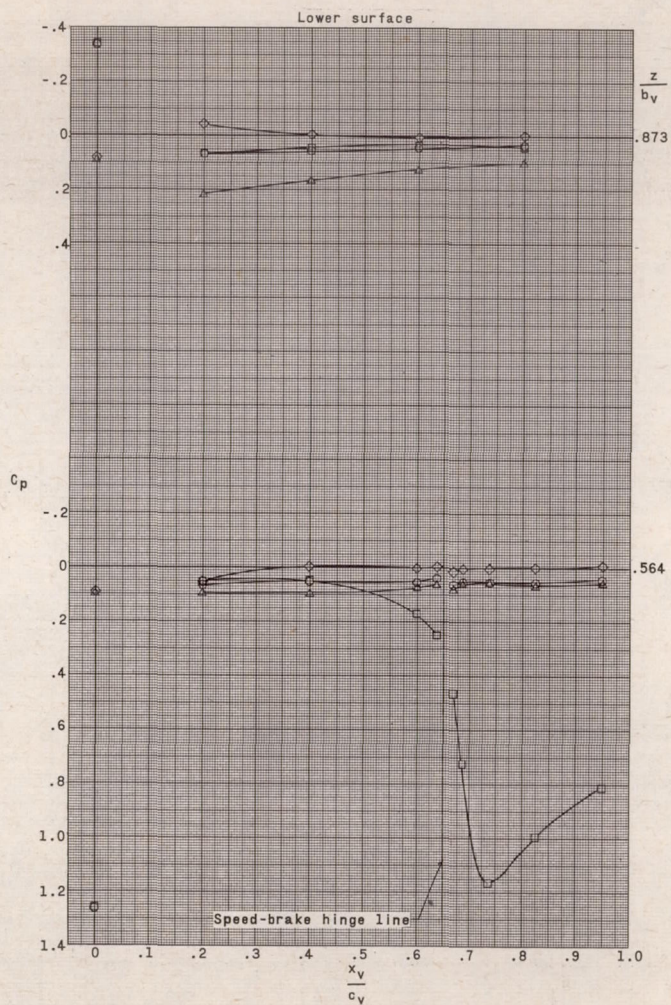
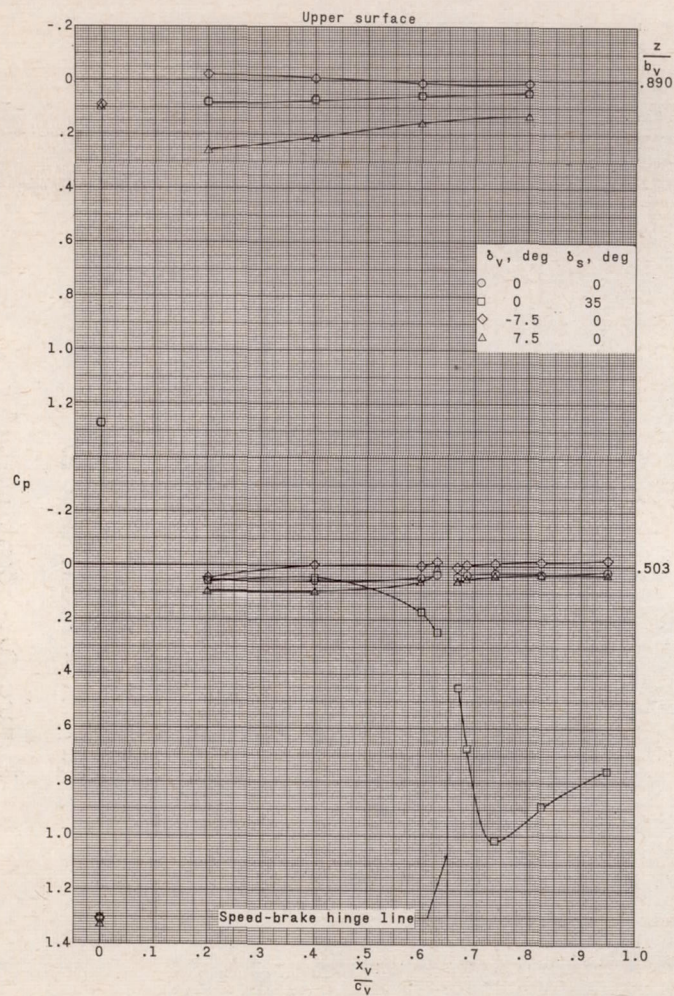


(b)  $M = 2.30$ ;  $\alpha = 15^\circ$ .

Figure 20.- Continued.



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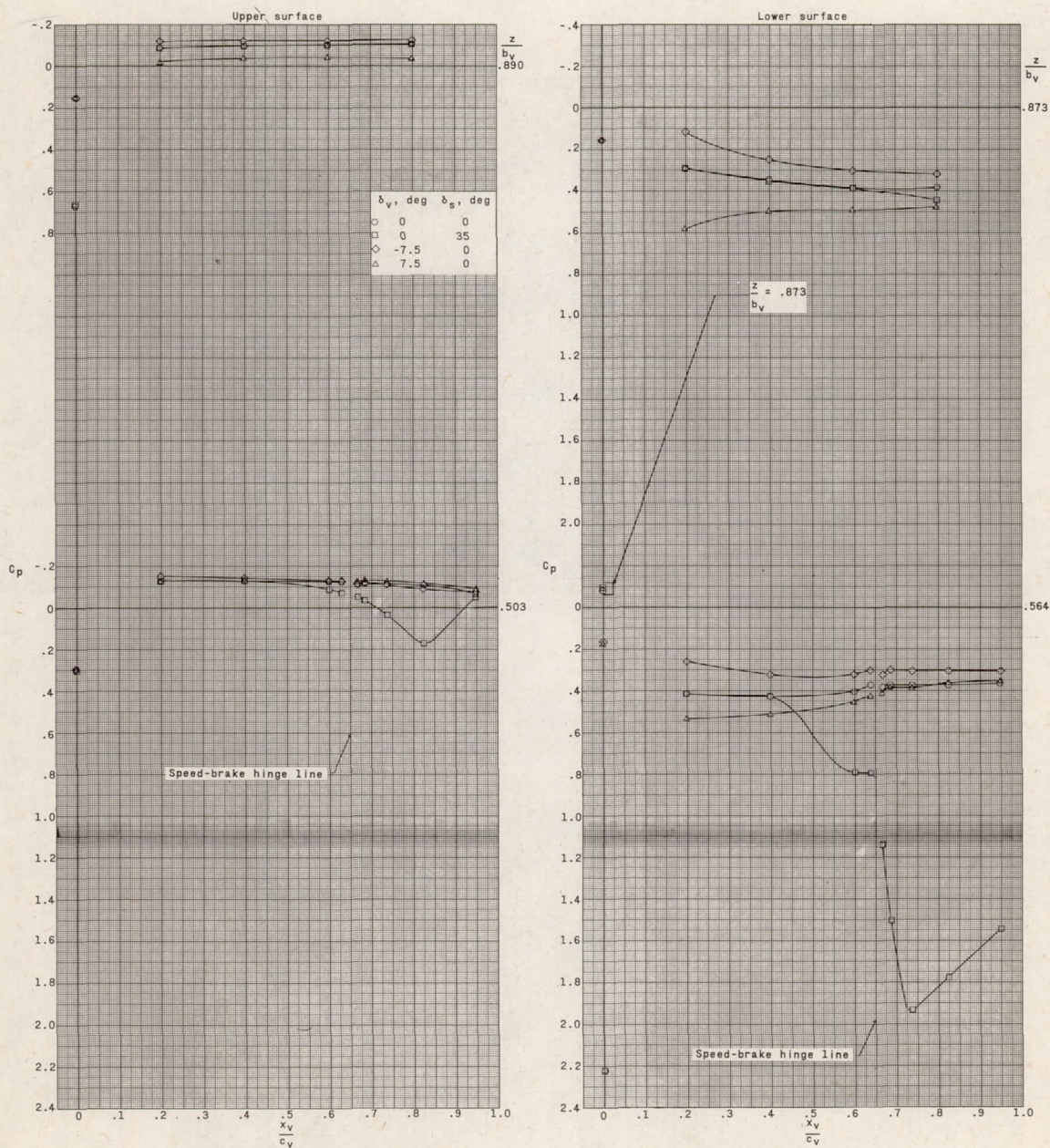


(c)  $M = 2.88$ ;  $\alpha = 0^\circ$ .

Figure 20.- Continued.

CONFIDENTIAL



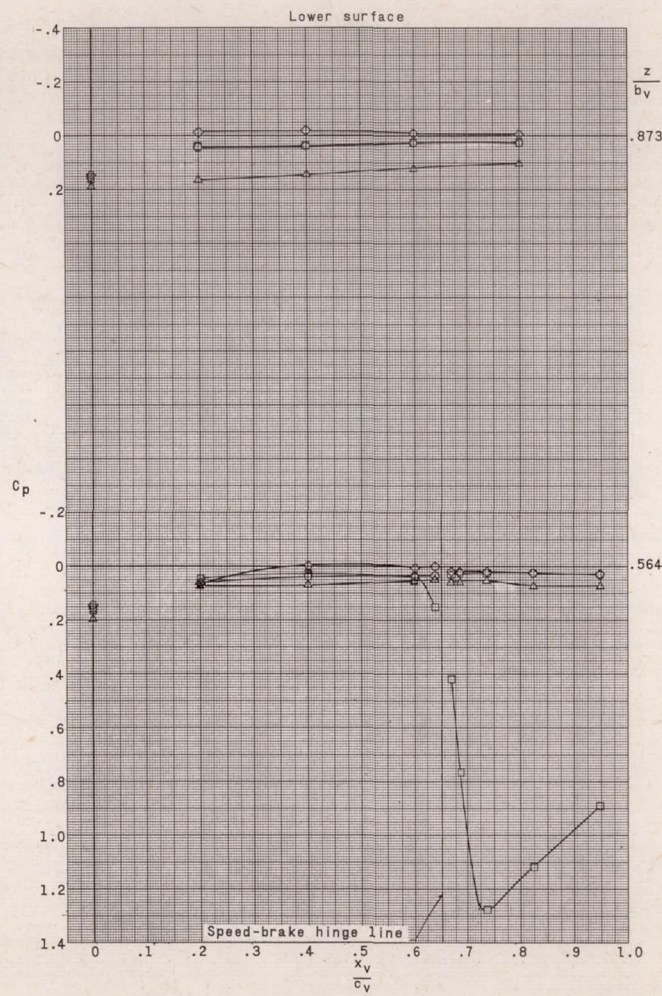
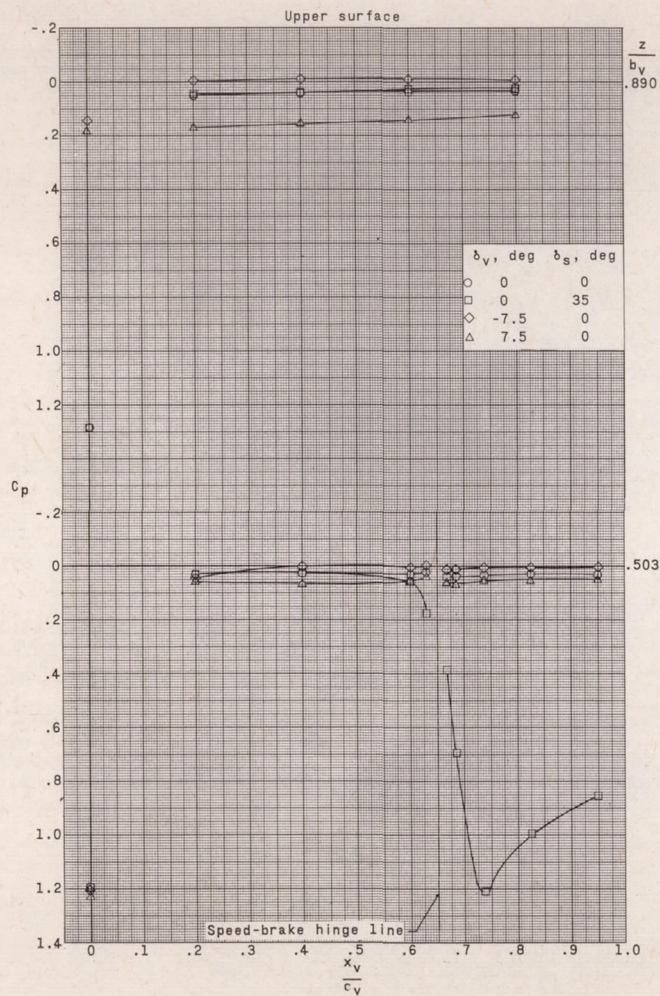


(d)  $M = 2.88$ ;  $\alpha = 20^\circ$ .

Figure 20.- Continued.



CONFIDENTIAL

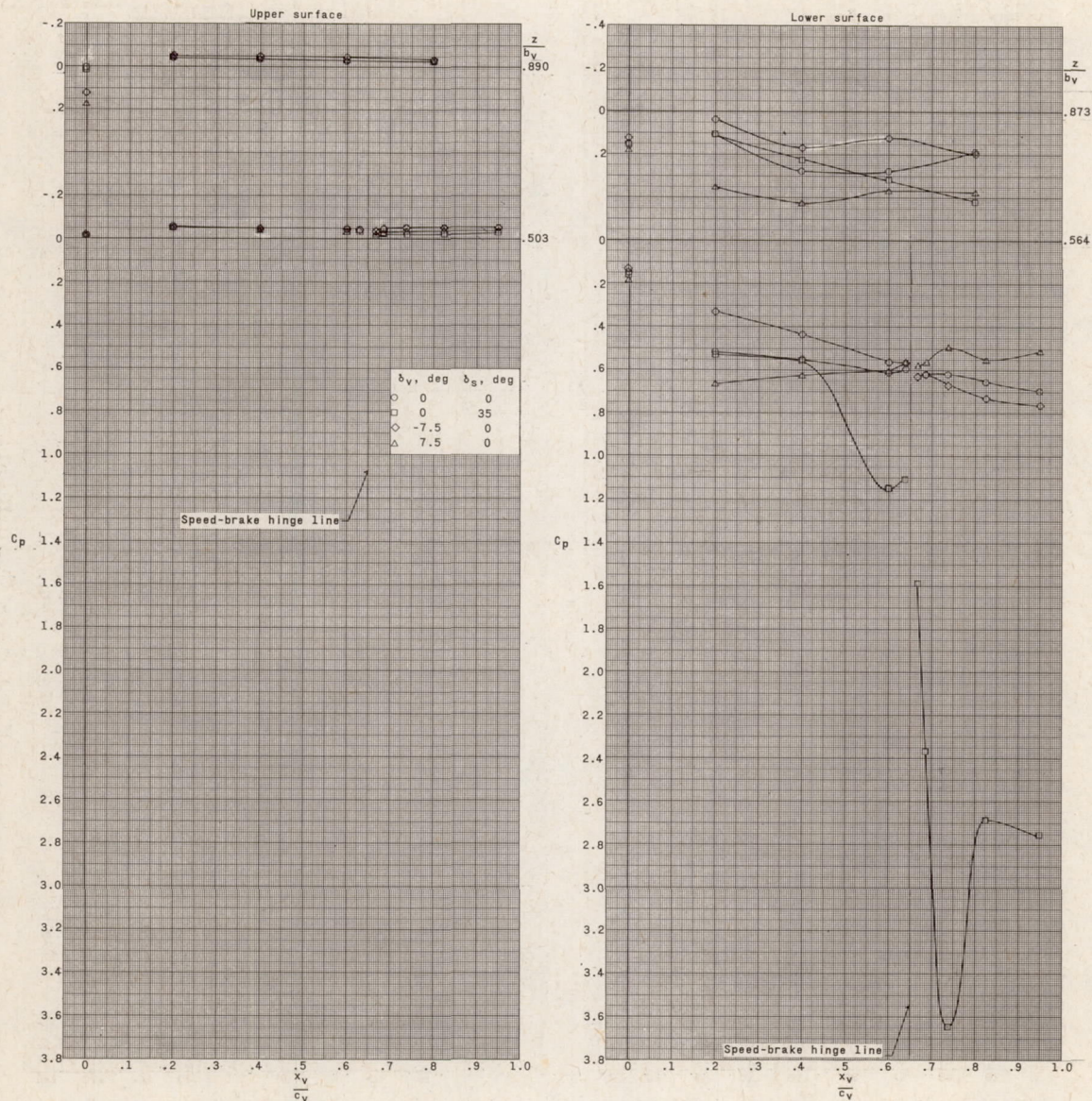


(e)  $M = 4.65$ ;  $\alpha = 0^\circ$ .

Figure 20.- Continued.

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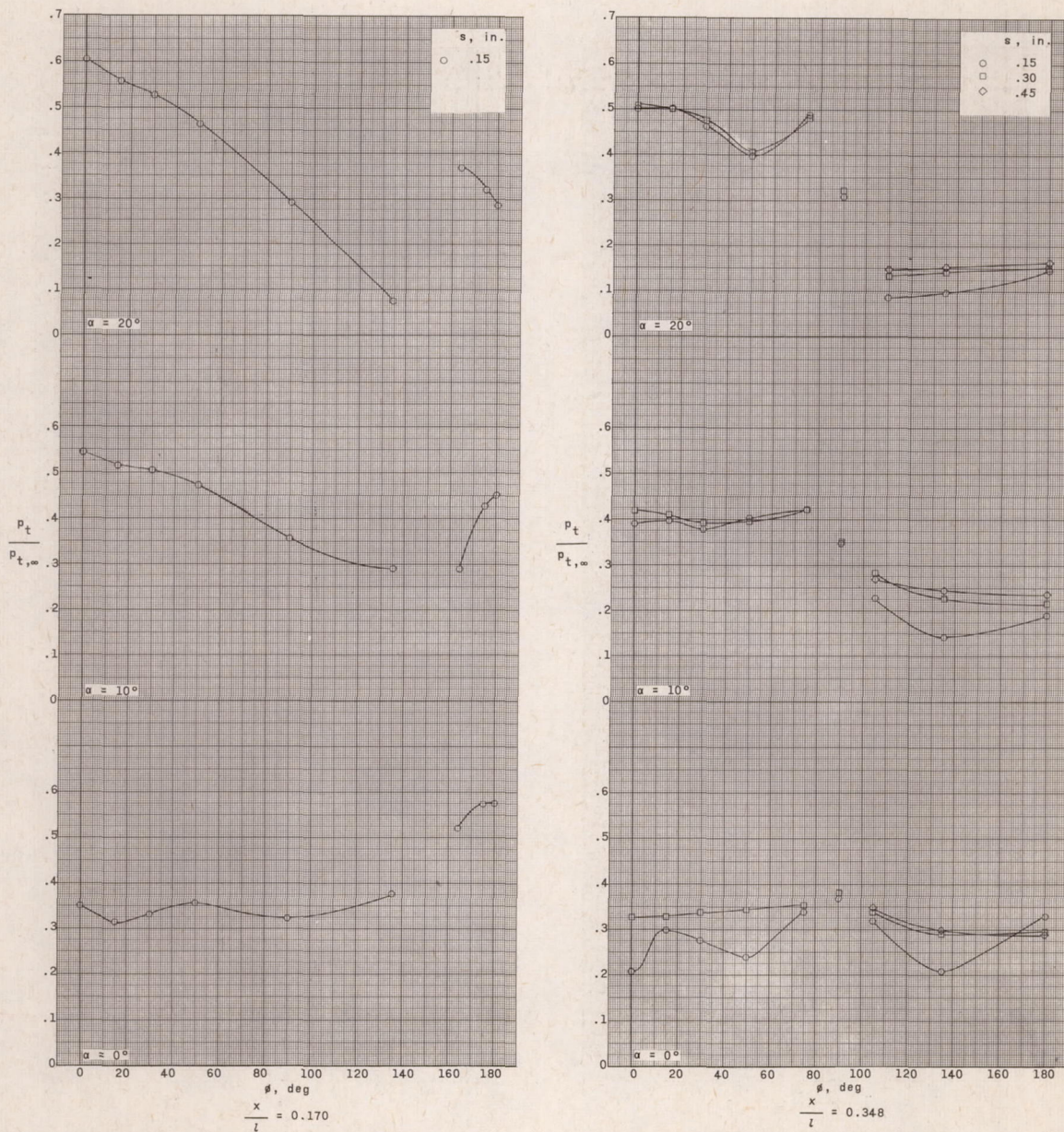




(f)  $M = 4.65$ ;  $\alpha = 28^\circ$ .

Figure 20.- Concluded.

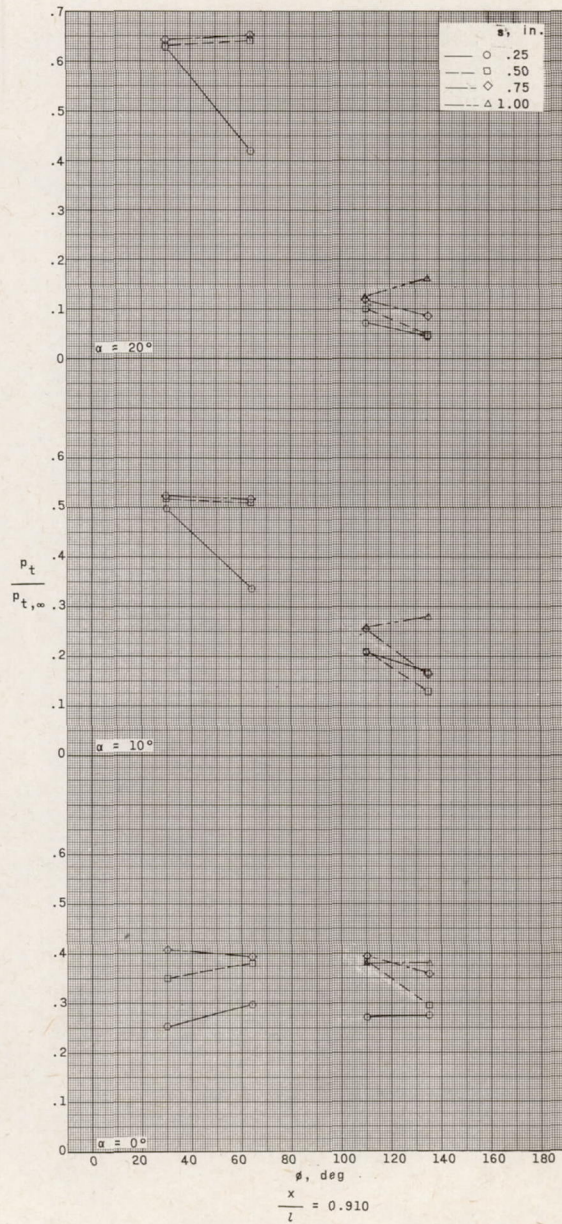
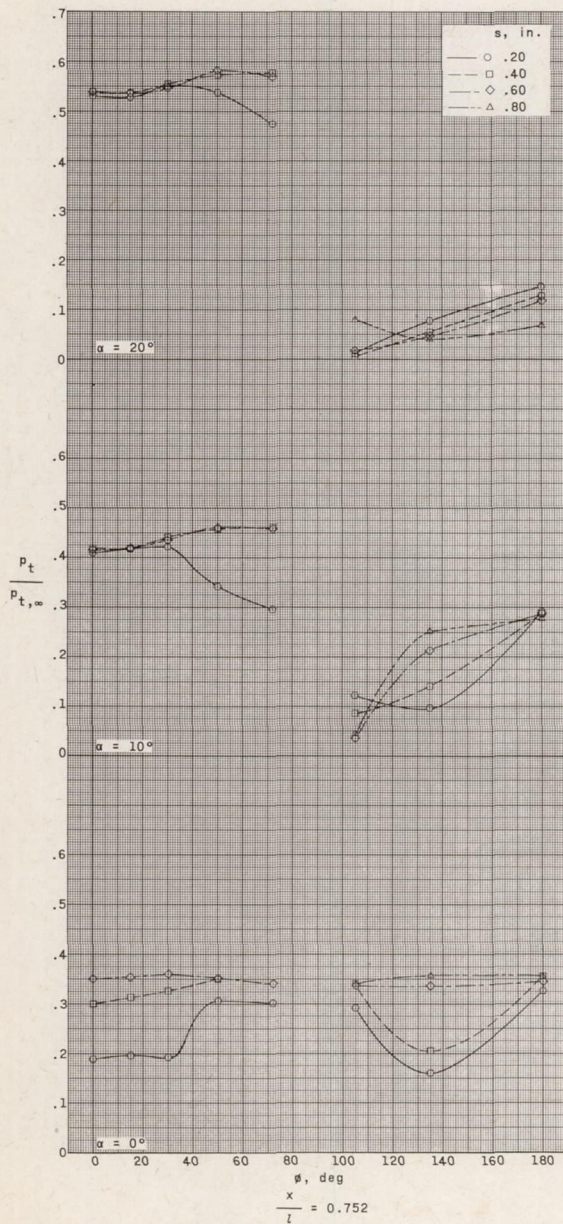




(a)  $M = 2.88$ .

Figure 21.- Effect of angle of attack on the measured impact pressure for four axial stations.

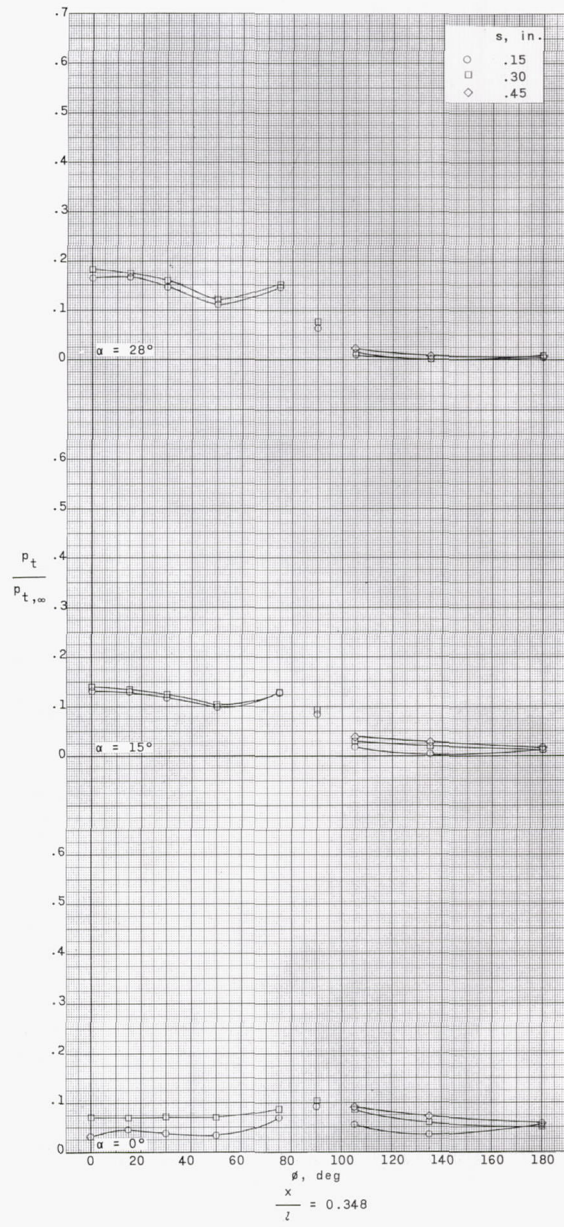
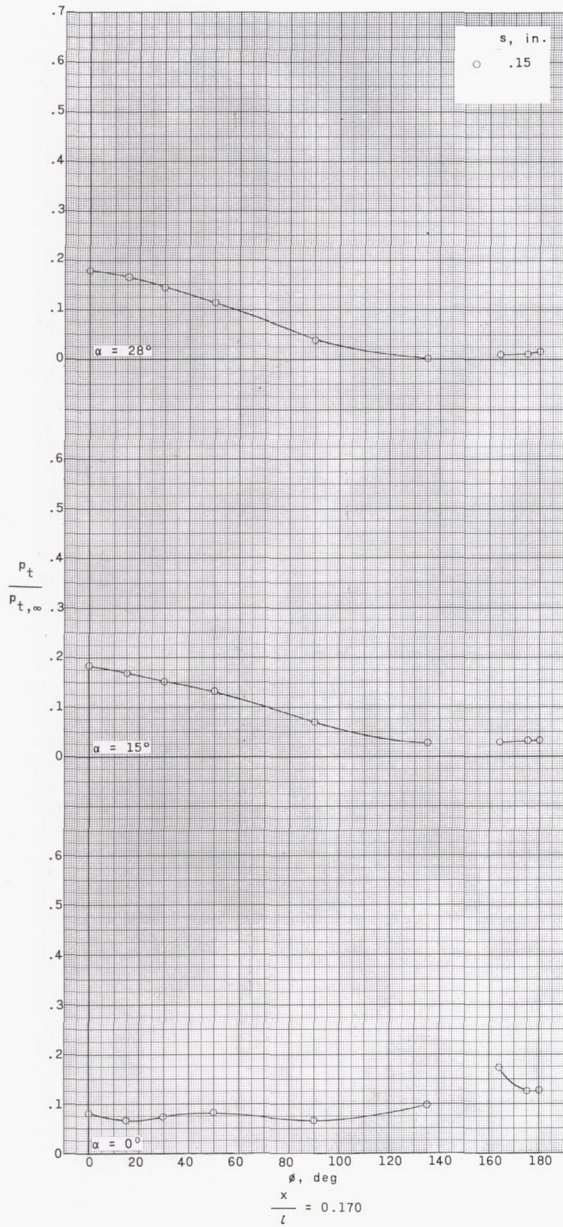




(a)  $M = 2.88$ . Concluded.

Figure 21.- Continued.

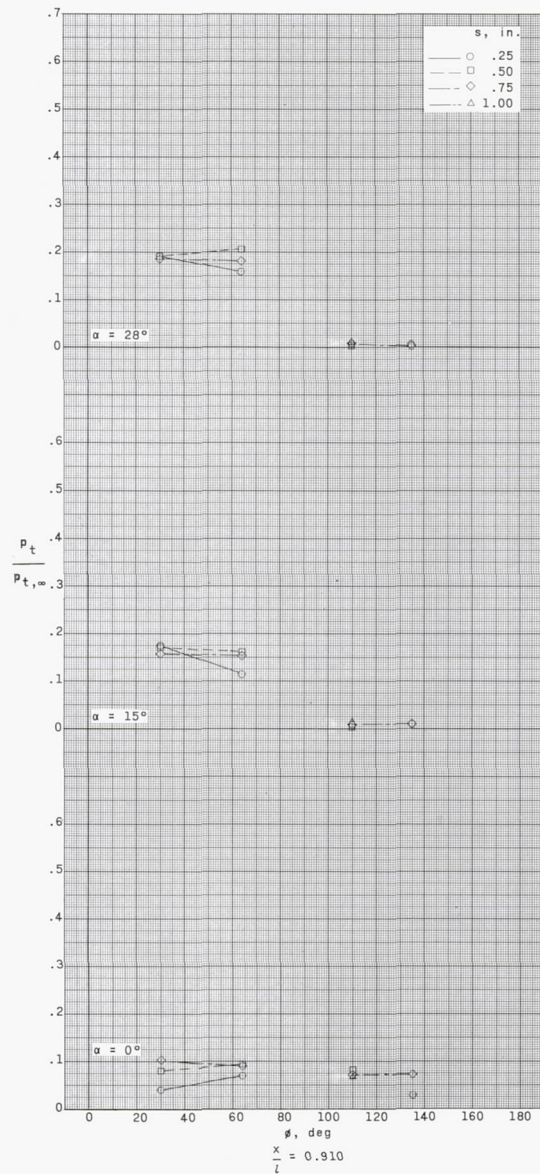
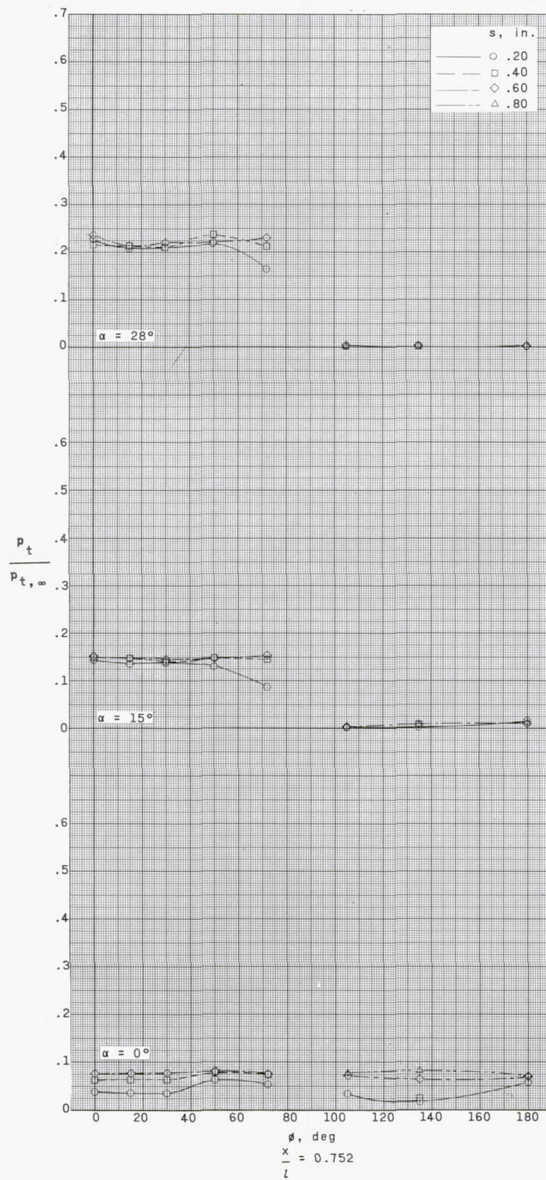




(b)  $M = 4.65$ .

Figure 21.- Continued.

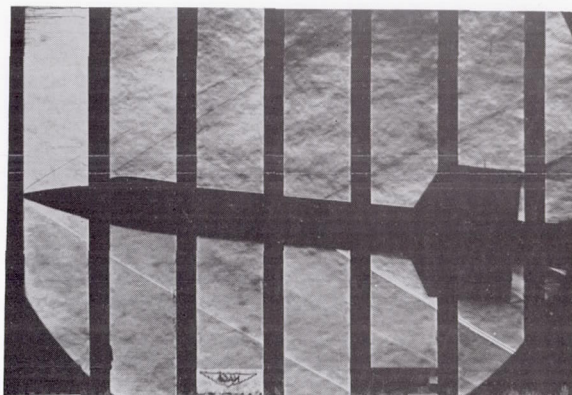




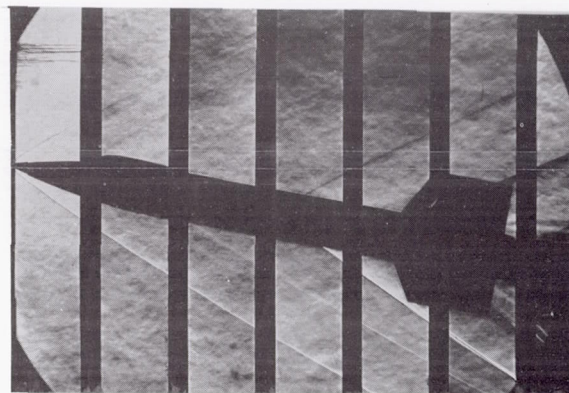
(b)  $M = 4.65$ . Concluded.

Figure 21.- Concluded.

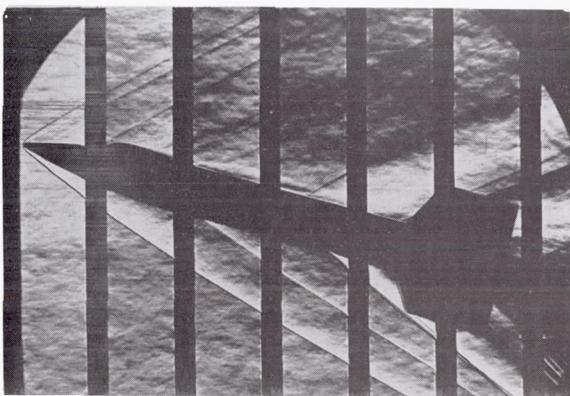




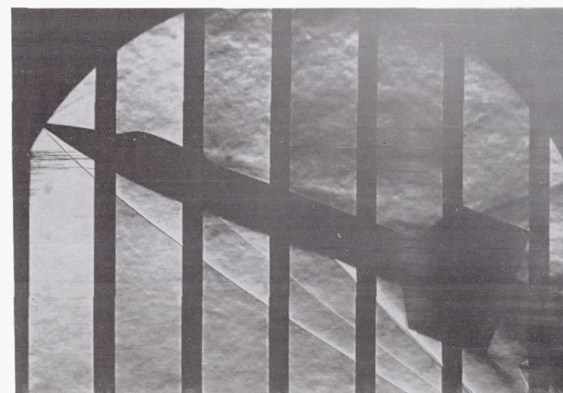
$\alpha = 5^\circ ; \beta = 0^\circ$



$\alpha = 10^\circ ; \beta = 0^\circ$



$\alpha = 15^\circ ; \beta = 0^\circ$



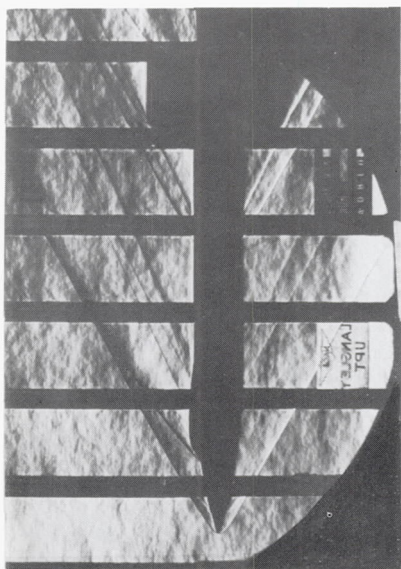
$\alpha = 20^\circ ; \beta = 0^\circ$

(a)  $M = 2.30$ .

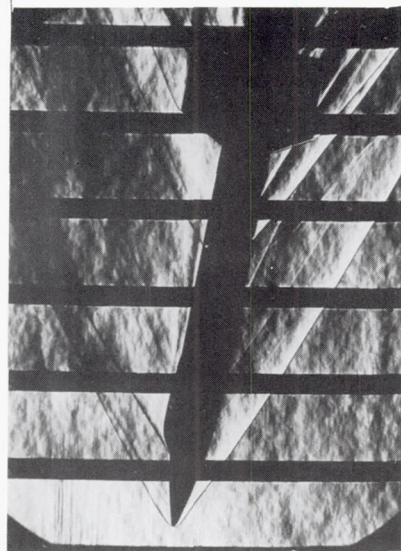
L-60-234

Figure 22.- Profile and plan-form schlieren photographs.

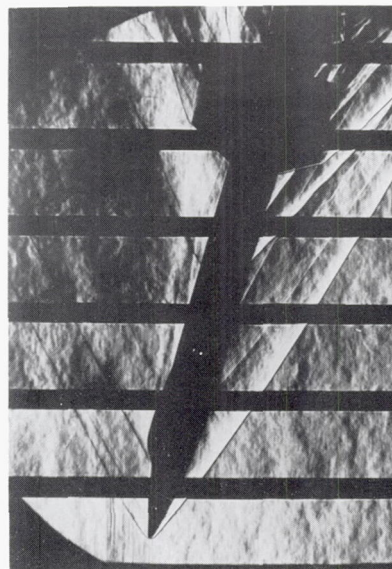




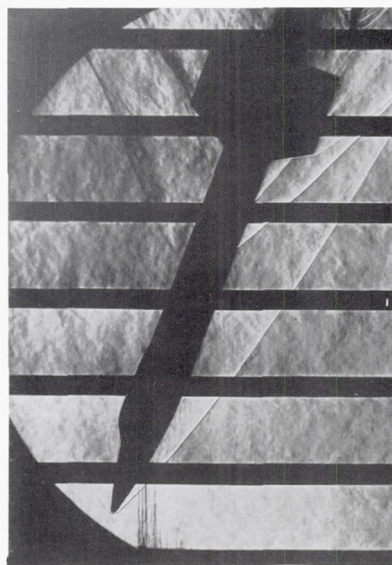
$\alpha = 0^\circ$  ;  $\beta = 10^\circ$



$\alpha = 10^\circ$  ;  $\beta = 10^\circ$



$\alpha = 15^\circ$  ;  $\beta = 10^\circ$

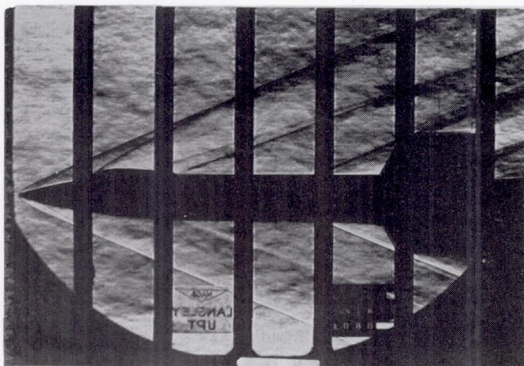


$\alpha = 20^\circ$  ;  $\beta = 10^\circ$

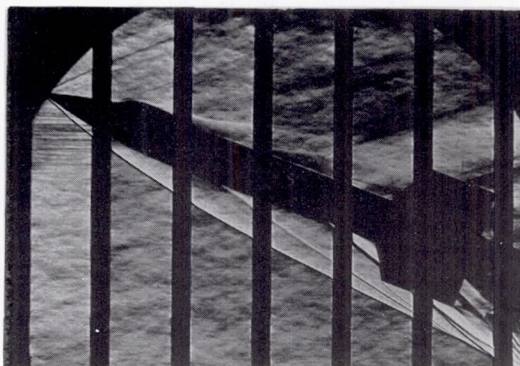
(a)  $M = 2.30$ . Concluded. L-60-235

Figure 22.- Continued.

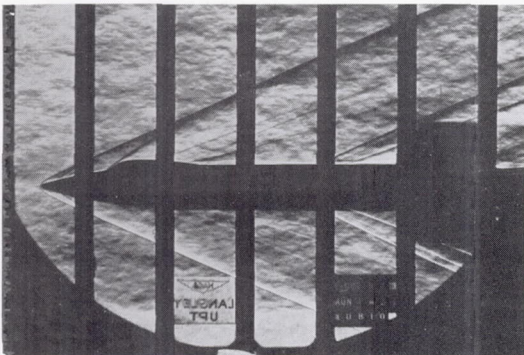




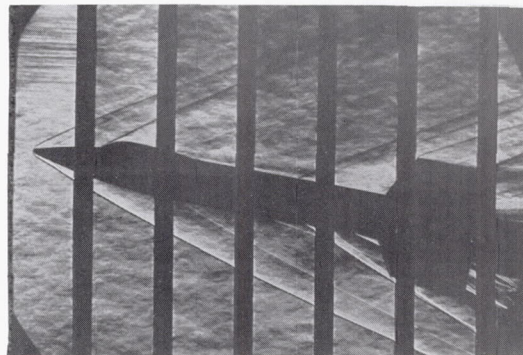
$\alpha = 0^\circ ; \beta = 0^\circ$



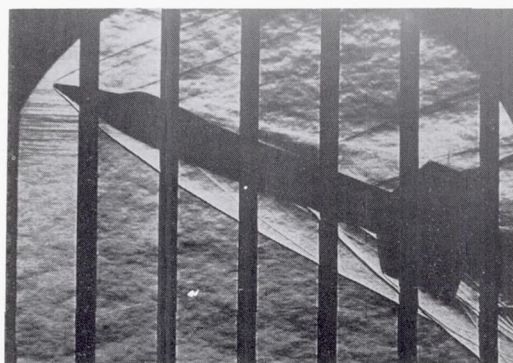
$\alpha = 20^\circ ; \beta = 0^\circ$



$\alpha = 0^\circ ; \beta = 10^\circ$



$\alpha = 10^\circ ; \beta = 10^\circ$



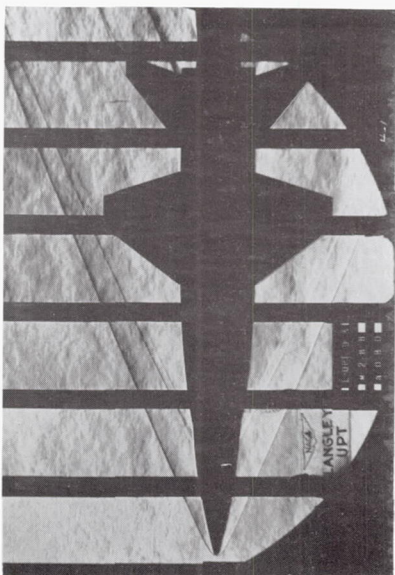
$\alpha = 20^\circ ; \beta = 10^\circ$

(b)  $M = 2.88$ .

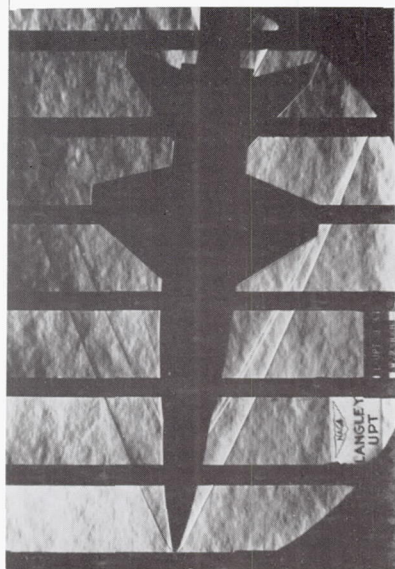
L-60-236

Figure 22.- Continued.

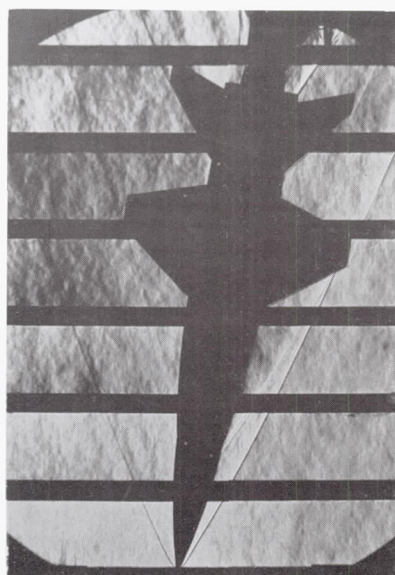




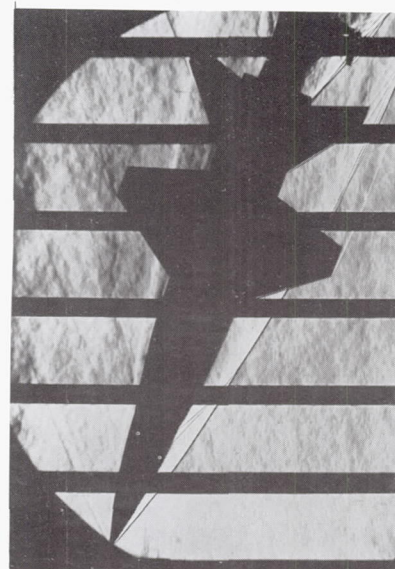
$\alpha = 0^\circ ; \beta = 0^\circ$



$\alpha = 0^\circ ; \beta = 5^\circ$



$\alpha = 0^\circ ; \beta = 10^\circ$



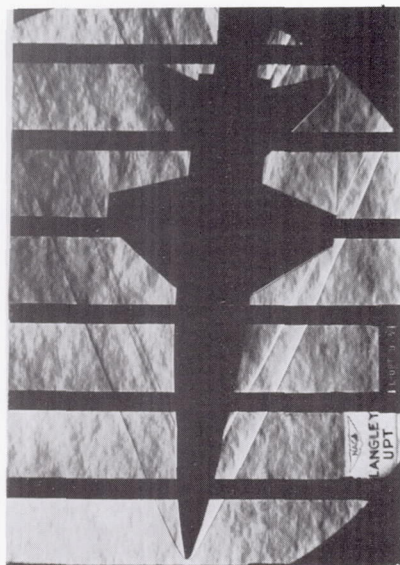
$\alpha = 0^\circ ; \beta = 20^\circ$

(b)  $M = 2.88$ . Continued.

L-60-237

Figure 22.- Continued.

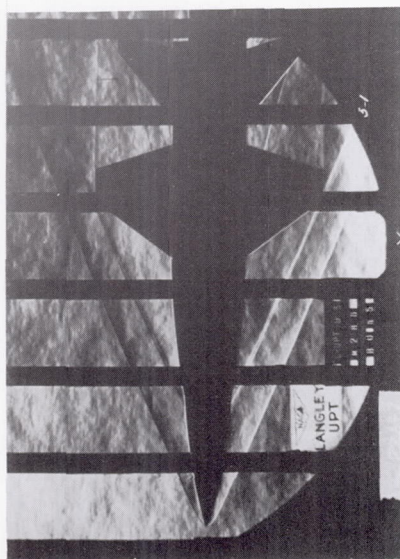




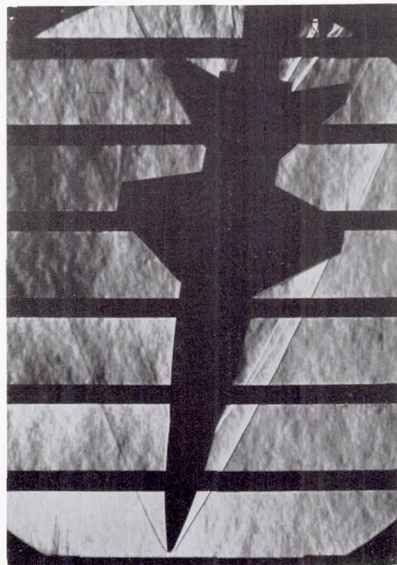
$\alpha = 5^\circ ; \beta = 5^\circ$



$\alpha = 5^\circ ; \beta = 20^\circ$



$\alpha = 5^\circ ; \beta = 0^\circ$



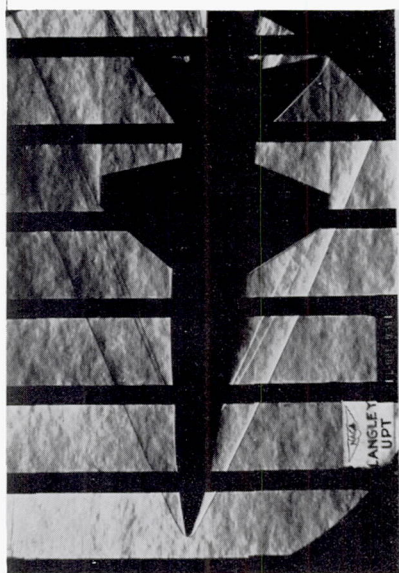
$\alpha = 5^\circ ; \beta = 10^\circ$

L-60-238

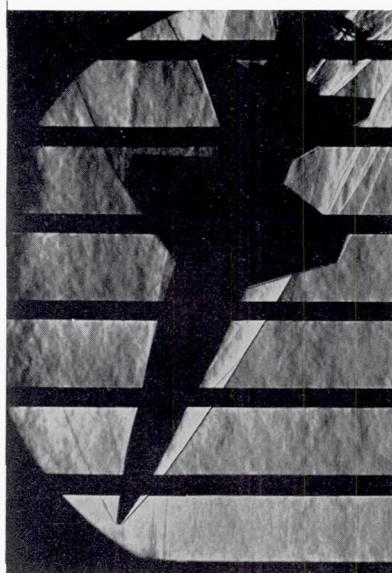
(b)  $M = 2.88$ . Continued.

Figure 22.- Continued.

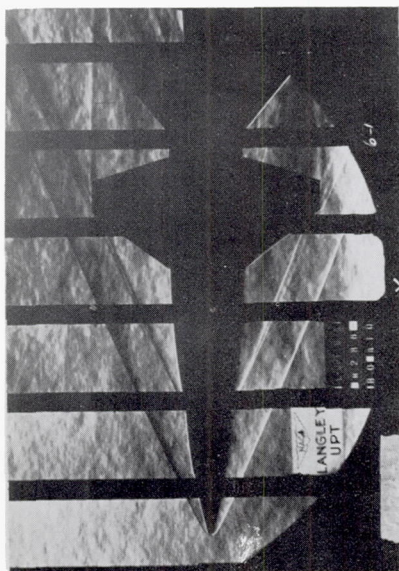




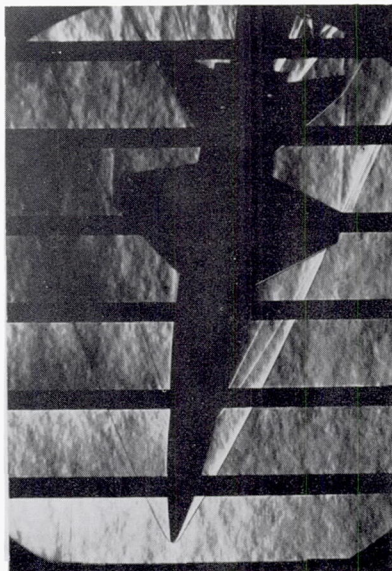
$\alpha = 10^\circ ; \beta = 5^\circ$



$\alpha = 10^\circ ; \beta = 20^\circ$



$\alpha = 10^\circ ; \beta = 0^\circ$

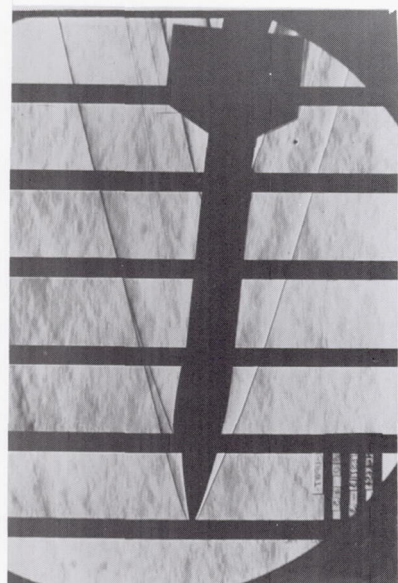


$\alpha = 10^\circ ; \beta = 10^\circ$

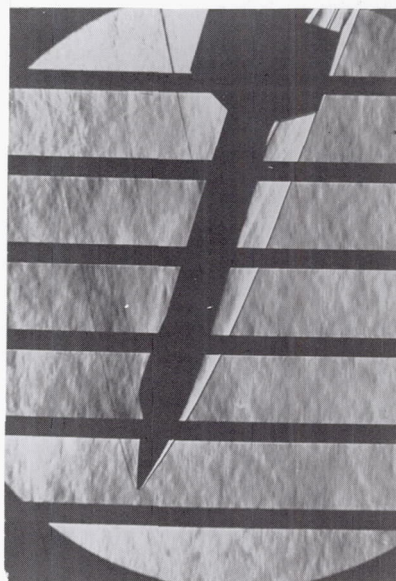
(b)  $M = 2.88$ . Concluded. L-60-239

Figure 22.- Continued.

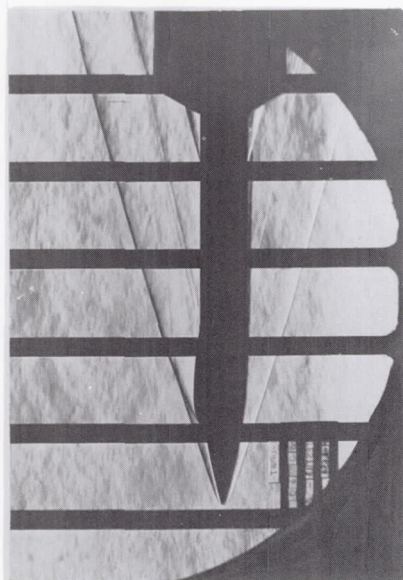




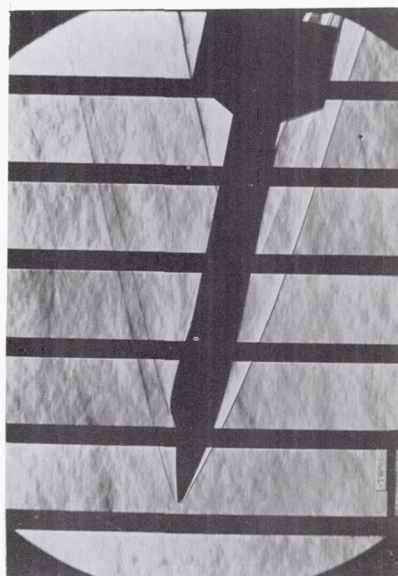
$\alpha = 5^\circ ; \beta = 0^\circ$



$\alpha = 15^\circ ; \beta = 0^\circ$



$\alpha = 0^\circ ; \beta = 0^\circ$



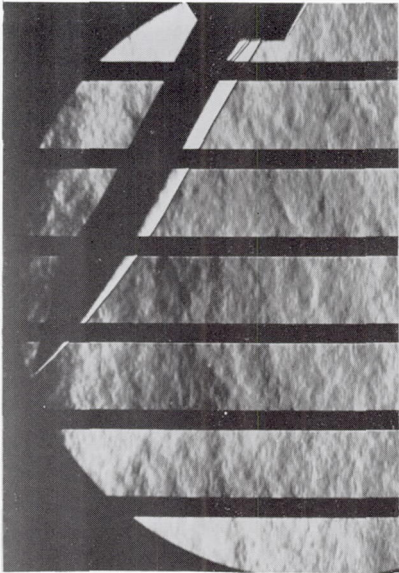
$\alpha = 10^\circ ; \beta = 0^\circ$

(c)  $M = 4.65$ .

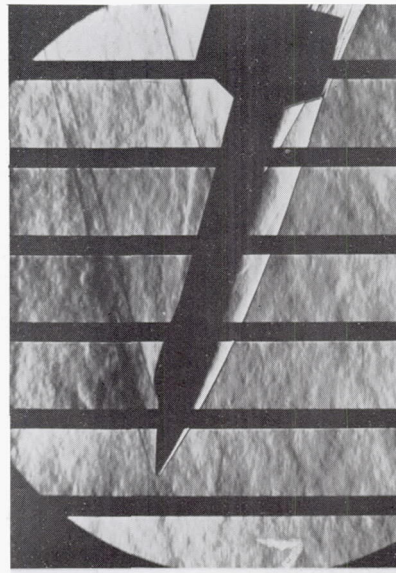
L-60-240

Figure 22.- Continued.

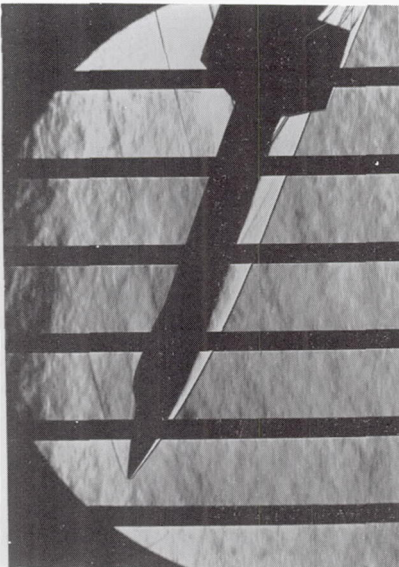




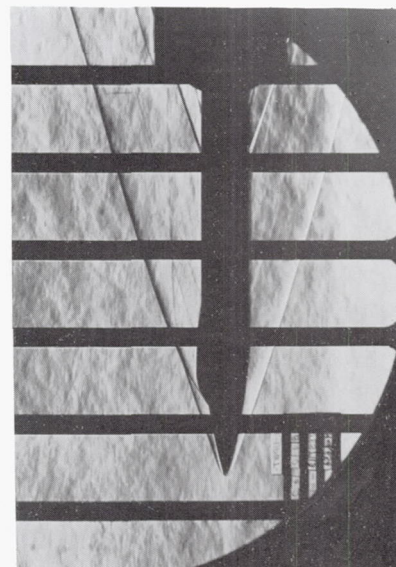
$\alpha = 28^\circ ; \beta = 0^\circ$



$\alpha = 15^\circ ; \beta = 10^\circ$



$\alpha = 20^\circ ; \beta = 0^\circ$



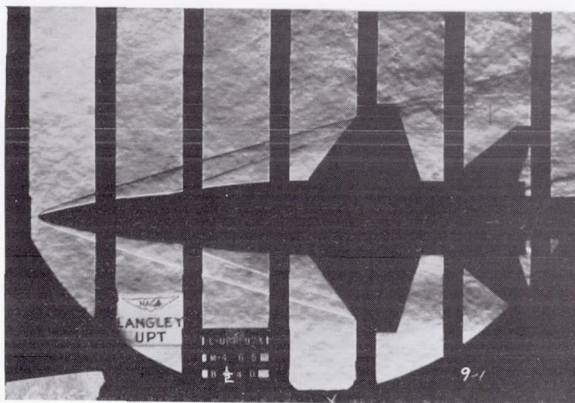
$\alpha = 0^\circ ; \beta = 10^\circ$

(c)  $M = 4.65$ . Continued. L-60-241

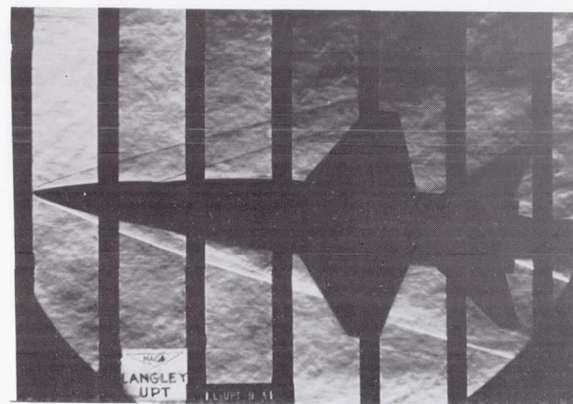
Figure 22.- Continued.



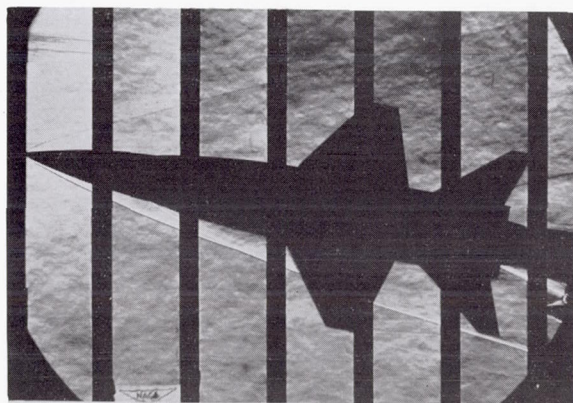
CONFIDENTIAL



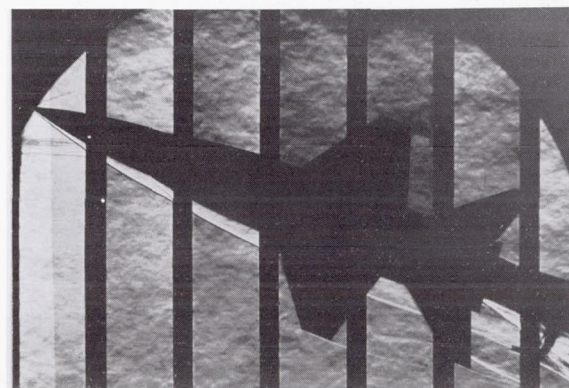
$\alpha = 0^\circ ; \beta = 0^\circ$



$\alpha = 0^\circ ; \beta = 5^\circ$



$\alpha = 0^\circ ; \beta = 10^\circ$



$\alpha = 0^\circ ; \beta = 20^\circ$

(c)  $M = 4.65$ . Continued.

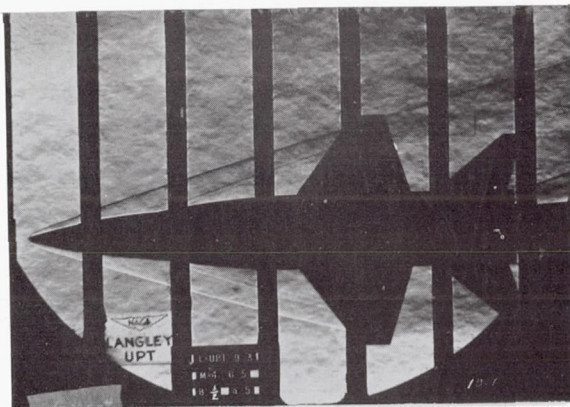
L-60-242

Figure 22.- Continued.

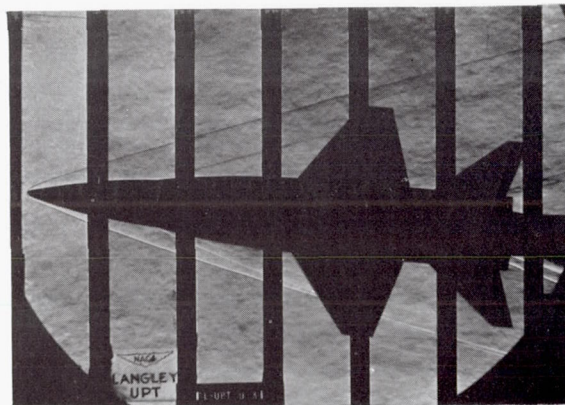
CONFIDENTIAL



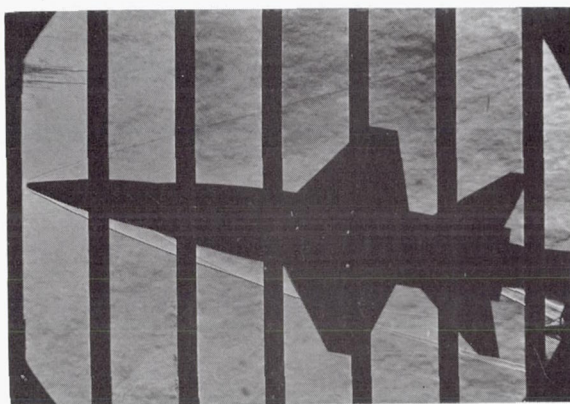
CONFIDENTIAL



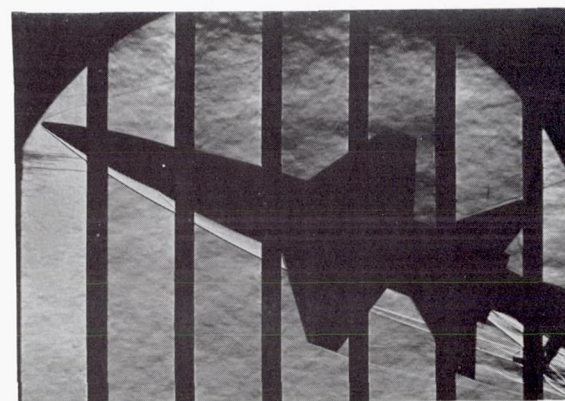
$\alpha = 5^\circ ; \beta = 0^\circ$



$\alpha = 5^\circ ; \beta = 5^\circ$



$\alpha = 5^\circ ; \beta = 10^\circ$



$\alpha = 5^\circ ; \beta = 20^\circ$

(c)  $M = 4.65$ . Continued.

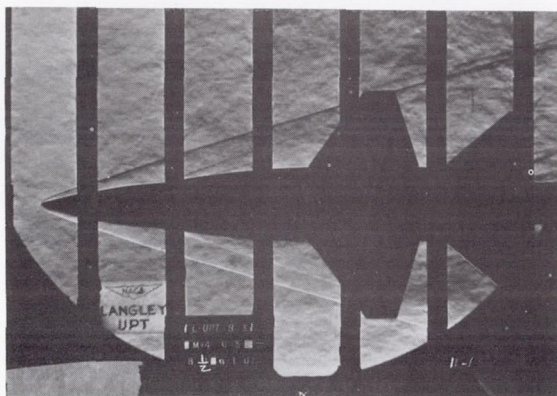
L-60-243

Figure 22.- Continued.

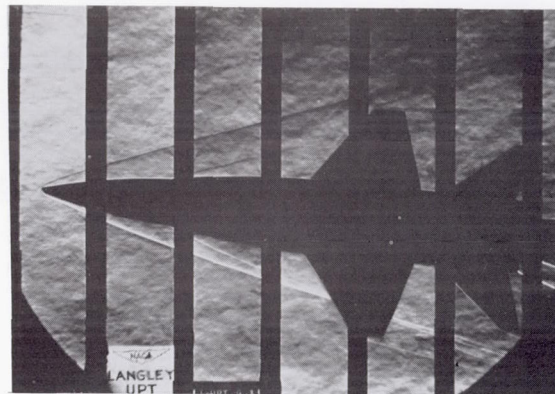
56  
CONFIDENTIAL



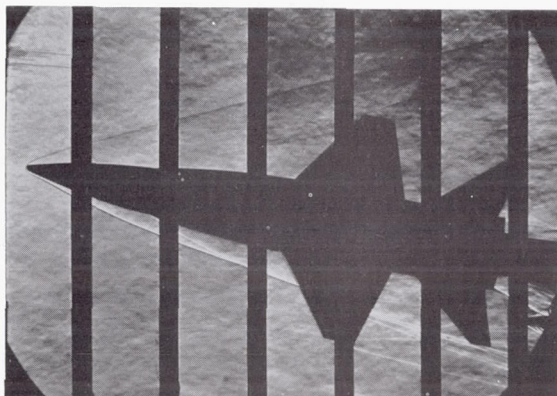
CONFIDENTIAL



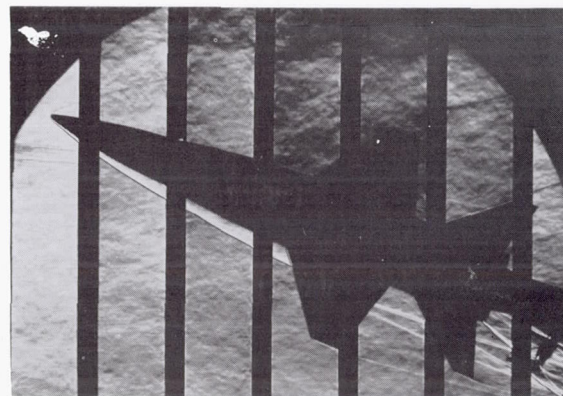
$\alpha = 10^\circ$  ;  $\beta = 0^\circ$



$\alpha = 10^\circ$  ;  $\beta = 5^\circ$



$\alpha = 10^\circ$  ;  $\beta = 10^\circ$



$\alpha = 10^\circ$  ;  $\beta = 20^\circ$

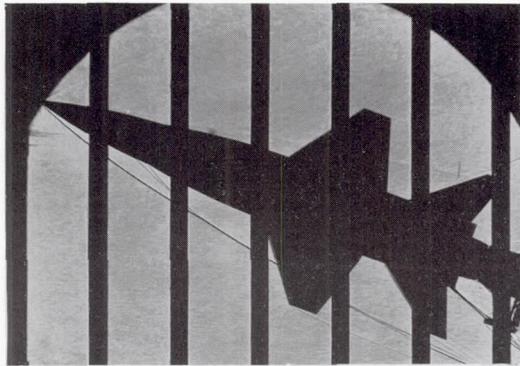
(c)  $M = 4.65$ . Concluded.

L-60-244

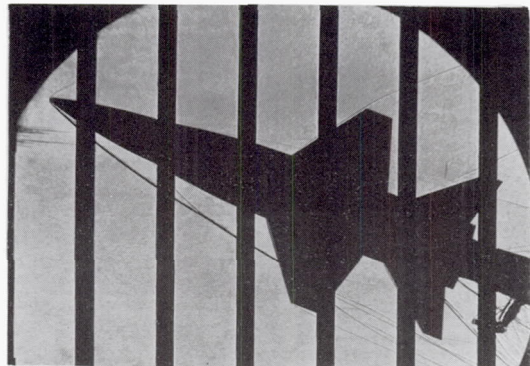
Figure 22.- Concluded.

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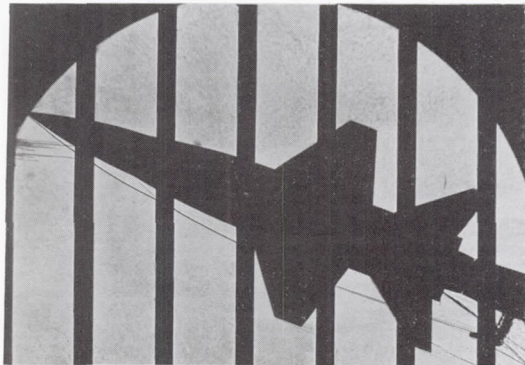


$\alpha = 0^\circ ; \beta = 20^\circ$

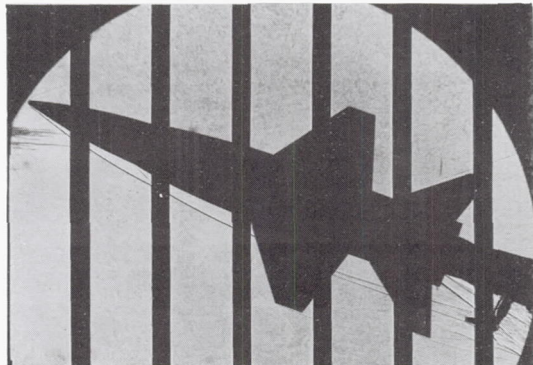


$\alpha = 10^\circ ; \beta = 20^\circ$

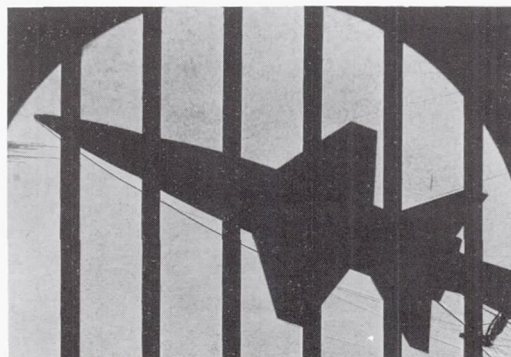
(a)  $M = 2.88$ .



$\alpha = 0^\circ ; \beta = 20^\circ$



$\alpha = 5^\circ ; \beta = 20^\circ$



$\alpha = 10^\circ ; \beta = 20^\circ$

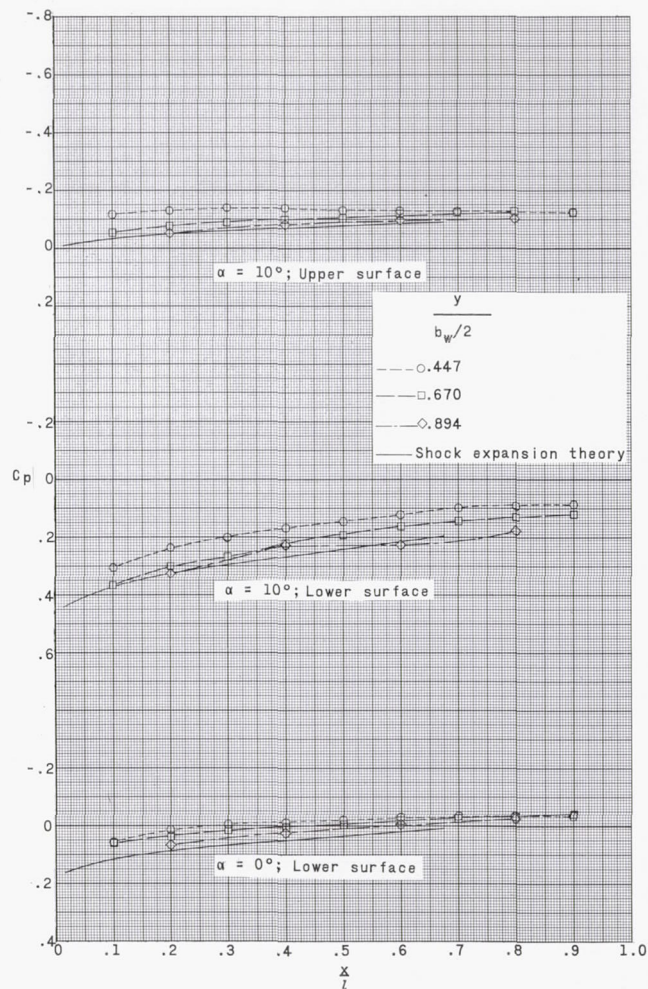
(b)  $M = 4.65$ .

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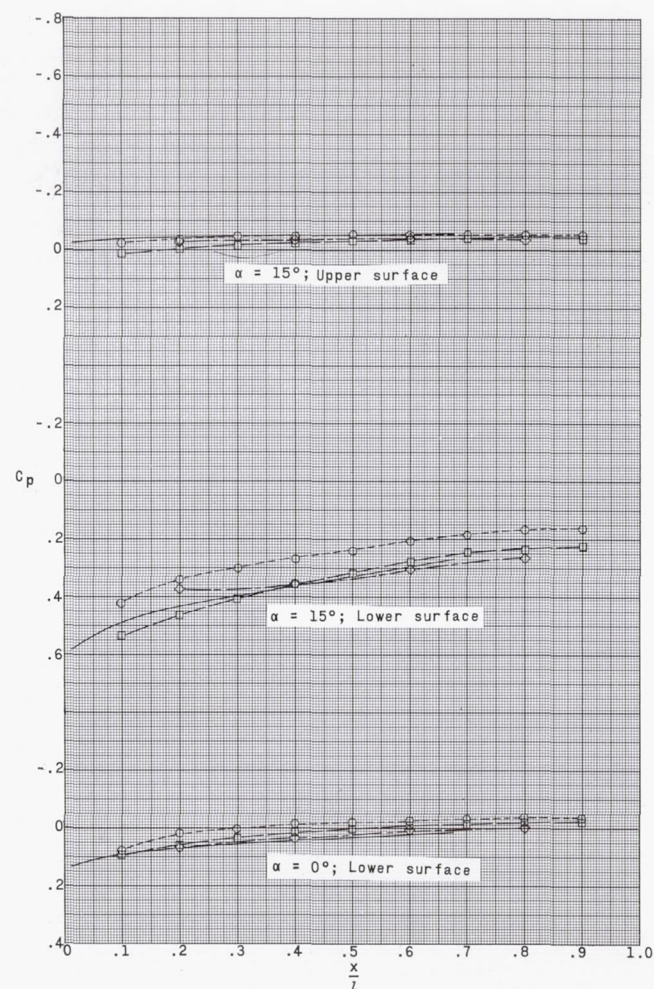
Figure 23.- Typical shadowgraphs.



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(a)  $M = 2.88$ .



(b)  $M = 4.65$ .

Figure 24.- Comparison of measured and theoretical pressure coefficients on the wing.

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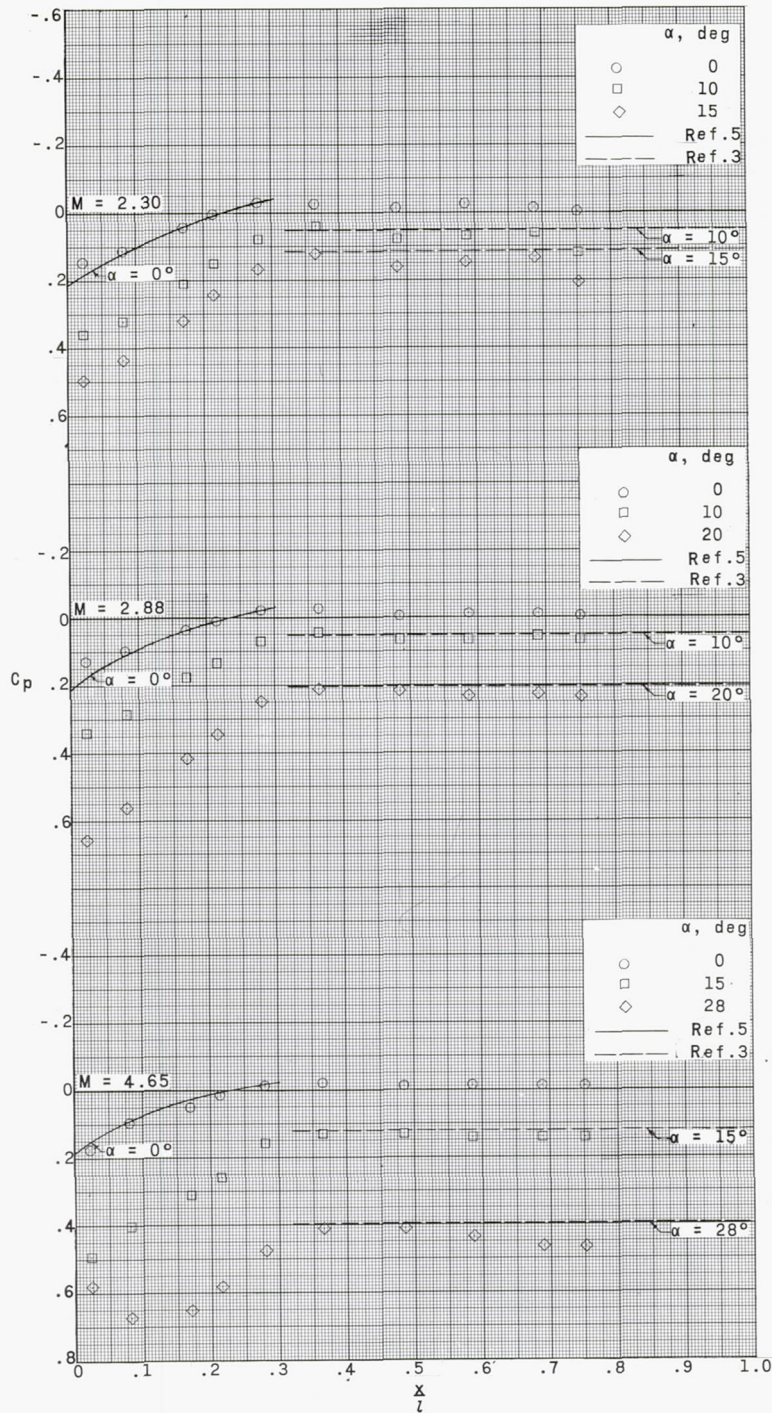


Figure 25.- Comparison of measured and theoretical pressure coefficients along stagnation line of fuselage.



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